

<211> 210
 <212> PRT
 <213> Homo sapiens

<400> 4268

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<210> 4269
 <211> 5748
 <212> DNA
 <213> Homo sapiens

<400> 4269

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<210> 4270

<211> 1084

<212> PRT

<213> Homo sapiens

<400> 4270

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Gln Ala Asn Arg Ser Thr Thr Pro Met Ala Pro Gly Val Phe Leu Thr		
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<211> 588

<212> DNA

<213> Homo sapiens

<400> 4271

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<211> 134

<212> PRT

<213> Homo sapiens

<400> 4272

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<211> 2081

<212> DNA

<213> Homo sapiens

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420
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720
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1560

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 1980
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 2081

<210> 4274

<211> 235

<212> PRT

<213> Homo sapiens

<400> 4274

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Met	Ser	Ser	Cys	Pro	Cys	Ser	Thr	Trp	Pro	Met	Trp	Asp	Thr	Ser	Asp
			20					25					30		
Glu	Glu	Ser	Ile	Arg	Ala	His	Val	Met	Ala	Ser	His	His	Ser	Lys	Arg
		35					40					45			
Arg	Gly	Arg	Ala	Ser	Ser	Glu	Ser	Gln	Gly	Leu	Gly	Ala	Gly	Val	Arg
	50					55				60					
Thr	Glu	Xaa	Asp	Val	Glu	Glu	Glu	Ala	Leu	Arg	Arg	Lys	Leu	Glu	Glu
65					70					75				80	
Leu	Thr	Ser	Asn	Val	Ser	Asp	Gln	Glu	Thr	Phe	Val	Arg	Gly	Gly	Gly
			85					90					95		
Ser	Gln	Gly	Arg	Lys	Cys	Arg	Ala	Gln	Gln	Gly	Gln	Ile	Ser	Trp	Ala
			100					105					110		
Ser	Pro	Pro	Gly	Gly	Pro	Gly	Arg	Trp	His	Gly	Cys	Pro	Ser	Asn	Gln
		115					120					125			
Gln	Thr	Gly	Lys	Lys	Pro	Gln	Asp	Pro	Gly	Asp	Pro	Val	Gln	Tyr	Asn
		130				135						140			
Arg	Thr	Thr	Asp	Glu	Glu	Leu	Ser	Glu	Leu	Glu	Asp	Arg	Val	Ala	Val
145					150					155					160
Thr	Ala	Ser	Glu	Val	Gln	Gln	Ala	Glu	Ser	Glu	Val	Ser	Asp	Ile	Glu
			165					170						175	
Ser	Arg	Ile	Ala	Ala	Leu	Arg	Ala	Ala	Gly	Leu	Thr	Val	Lys	Pro	Ser
		180					185						190		
Gly	Lys	Pro	Arg	Arg	Lys	Ser	Asn	Leu	Pro	Ile	Phe	Leu	Pro	Arg	Val
		195					200					205			
Ala	Gly	Lys	Leu	Gly	Lys	Arg	Pro	Glu	Asp	Pro	Asn	Ala	Asp	Pro	Ser
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Ser	Glu	Ala	Lys	Ala	Met	Ala	Val	Pro	Ile	Phe					

225

230

235

<210> 4275

<211> 874

<212> DNA

<213> Homo sapiens

<400> 4275

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120
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180
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240
gagggcgctg gggccgtgga gcaggagggc gtgcggcgcg cccgggagag gctagagcag
300
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420
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480
gacctgcccc cgcacctgct gctgtcctgt ctgacgggag aggggctgga cggcctcctg
540
gagggcgtga ggaaggagct agctgcagtg tgtggggacc cgtccacaga tccccgctg
600
ctgacccgag caaggcacca gcaccacctc cagggttgcc tggatgccct cggccactac
660
aagcagtcaa aagacctggc cctggcggca gaggcgctgc gggtgggccg gggtcacctg
720
acccggctca caggtggagg gggtagcgag gagatcctgg acatcatctt ccaggacttc
780
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<210> 4276

<211> 264

<212> PRT

<213> Homo sapiens

<400> 4276

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20 25 30
Gly Lys Ser Ser Leu Val Asn Leu Leu Ser Arg Lys Pro Val Ser Ile
35 40 45
Val Ser Pro Glu Pro Gly Thr Thr Arg Asp Val Leu Glu Thr Pro Val
50 55 60
Asp Leu Ala Gly Phe Pro Val Leu Leu Ser Asp Thr Ala Gly Leu Arg

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<210> 4277
<211> 1070
<212> DNA
<213> Homo sapiens
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<400> 4277
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180
ggggttggtg gagtgggttg attttcctg gaattgagtg agaaattcag aagactgaag
240
cccaggctta ctgtctacct ttcacggagg cctagccgtg agaggacaga agaaggcacg
300
tggcgaatca tgacagcgga caaagacaaa gacaaagaca aagagaagga ccgggaccga
360
gaccgggacc gagagagaga gaaaagagac aaagcaagag agagtgagaa ttcaaggcca
420
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480
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540
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660
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<400> 4278															
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			20					25					30		
Glu	Asn	Ser	Arg	Pro	Arg	Arg	Ser	Cys	Thr	Leu	Glu	Gly	Gly	Ala	Lys
		35					40					45			
Asn	Tyr	Ala	Glu	Ser	Asp	His	Ser	Glu	Asp	Glu	Asp	Asn	Asp	Asn	Asn
	50					55					60				
Ser	Ala	Thr	Ala	Glu	Glu	Ser	Thr	Lys	Lys	Asn	Lys	Lys	Lys	Pro	Pro
65					70					75					80
Lys	Lys	Lys	Ser	Arg	Tyr	Glu	Arg	Thr	Asp	Thr	Gly	Glu	Ile	Thr	Ser
				85					90					95	
Tyr	Ile	Thr	Glu	Asp	Asp	Val	Val	Tyr	Arg	Pro	Gly	Asp	Cys	Val	Tyr
			100					105					110		
Ile	Glu	Ser	Arg	Arg	Pro	Asn	Thr	Pro	Tyr	Phe	Ile	Cys	Ser	Ile	Gln
		115					120					125			
Asp	Phe	Lys	Leu	Val	His	Asn	Ser	Gln	Ala	Cys	Cys	Arg	Ser	Pro	Thr
	130					135					140				
Pro	Ala	Leu	Cys	Asp	Pro	Pro	Ala	Cys	Ser	Leu	Pro	Val	Ala	Ser	Gln
145					150					155					160
Pro	Pro	Gln	His	Leu	Ser	Glu	Ala	Gly	Arg	Gly	Pro	Val	Gly	Ser	Lys
				165					170					175	
Arg	Asp	His	Leu	Leu	Met	Asn	Val	Lys	Trp	Tyr	Tyr	Arg	Gln	Ser	Glu
			180					185					190		
Val	Pro	Asp	Ser	Val	Tyr	Gln	His	Leu	Val	Gln	Asp	Arg	His	Asn	Glu
		195					200					205			
Asn	Asp	Ser	Gly	Arg	Glu	Leu	Val	Ile	Thr	Asp	Pro	Val	Ile	Lys	Asn
	210					215					220				
Arg	Glu	Leu	Phe	Ile	Ser	Asp	Tyr	Val	Asp	Thr	Tyr	His	Ala	Ala	Ala
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<210> 4279

<211> 1963

<212> DNA

<213> Homo sapiens

<400> 4279

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<210> 4280

<211> 575

<212> PRT

<213> Homo sapiens

<400> 4280

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			20					25					30		
Val	Ser	Asp	Asp	Val	Asn	Glu	Tyr	Ala	Met	Ala	Leu	Arg	Asp	Thr	Glu
		35					40					45			
Asp	Lys	Leu	Arg	Arg	Cys	Pro	Lys	Arg	Arg	Lys	Asp	Ile	Leu	Ala	Glu
	50				55						60				
Leu	Thr	Lys	Ser	Gln	Lys	Val	Phe	Ser	Glu	Lys	Leu	Asp	His	Leu	Ser
65				70					75					80	
Arg	Arg	Leu	Ala	Trp	Val	His	Ala	Thr	Val	Tyr	Ser	Gln	Glu	Lys	Met
			85					90					95		
Leu	Asp	Ile	Tyr	Trp	Leu	Leu	Arg	Val	Cys	Leu	Arg	Thr	Ile	Glu	His
		100					105					110			
Gly	Asp	Arg	Thr	Gly	Ser	Leu	Phe	Ala	Phe	Met	Pro	Glu	Phe	Tyr	Leu
		115				120						125			
Ser	Val	Ala	Ile	Asn	Ser	Tyr	Ser	Ala	Leu	Lys	Asn	Tyr	Phe	Gly	Pro
	130				135						140				
Val	His	Ser	Met	Glu	Glu	Leu	Pro	Gly	Tyr	Glu	Glu	Thr	Leu	Thr	Arg
145				150					155					160	
Leu	Ala	Ala	Ile	Leu	Ala	Lys	His	Phe	Ala	Asp	Ala	Arg	Ile	Val	Gly
			165					170					175		
Thr	Asp	Ile	Arg	Asp	Ser	Leu	Met	Gln	Ala	Leu	Ala	Ser	Tyr	Val	Cys
		180				185						190			
Tyr	Pro	His	Ser	Leu	Arg	Ala	Val	Glu	Arg	Ile	Pro	Glu	Glu	Gln	Arg
	195				200						205				
Ile	Ala	Met	Val	Arg	Asn	Leu	Leu	Ala	Pro	Tyr	Glu	Gln	Arg	Pro	Trp
	210				215						220				
Ala	Gln	Thr	Asn	Trp	Ile	Leu	Val	Arg	Leu	Trp	Arg	Gly	Cys	Gly	Phe
225			230					235						240	
Gly	Tyr	Arg	Tyr	Thr	Arg	Leu	Pro	His	Leu	Leu	Lys	Thr	Lys	Leu	Glu

				245					250					255					
Asp	Ala	Asn	Leu	Pro	Ser	Leu	Gln	Lys	Pro	Cys	Pro	Ser	Thr	Leu	Leu				
			260					265					270						
Gln	Gln	His	Met	Ala	Asp	Leu	Leu	Gln	Gln	Gly	Pro	Asp	Val	Ala	Pro				
		275					280					285							
Ser	Phe	Leu	Asn	Ser	Val	Leu	Asn	Gln	Leu	Asn	Trp	Ala	Phe	Ser	Glu				
	290					295					300								
Phe	Ile	Gly	Met	Ile	Gln	Glu	Ile	Gln	Gln	Ala	Ala	Glu	Arg	Leu	Glu				
305					310					315					320				
Arg	Asn	Phe	Val	Asp	Ser	Arg	Gln	Leu	Lys	Val	Cys	Ala	Thr	Cys	Phe				
			325					330						335					
Asp	Leu	Ser	Val	Ser	Leu	Leu	Arg	Val	Leu	Glu	Met	Thr	Ile	Thr	Leu				
		340					345						350						
Val	Pro	Glu	Ile	Phe	Leu	Asp	Trp	Thr	Arg	Pro	Thr	Ser	Glu	Met	Leu				
	355						360					365							
Leu	Arg	Arg	Leu	Ala	Gln	Leu	Leu	Asn	Gln	Val	Leu	Asn	Arg	Val	Thr				
370					375						380								
Ala	Glu	Arg	Asn	Leu	Phe	Asp	Arg	Val	Val	Thr	Leu	Arg	Leu	Pro	Gly				
385					390					395				400					
Leu	Glu	Ser	Val	Asp	His	Tyr	Pro	Ile	Leu	Val	Ala	Val	Thr	Gly	Ile				
			405					410					415						
Leu	Val	Gln	Leu	Leu	Val	Arg	Gly	Pro	Ala	Ser	Glu	Arg	Glu	Gln	Ala				
		420					425						430						
Thr	Ser	Val	Leu	Leu	Ala	Asp	Pro	Cys	Phe	Gln	Leu	Arg	Ser	Ile	Cys				
	435					440						445							
Tyr	Leu	Leu	Gly	Gln	Pro	Glu	Pro	Pro	Ala	Pro	Gly	Thr	Ala	Leu	Pro				
450					455						460								
Ala	Pro	Asp	Arg	Lys	Arg	Phe	Ser	Leu	Gln	Ser	Tyr	Ala	Asp	Tyr	Ile				
465				470						475				480					
Ser	Ala	Asp	Glu	Leu	Ala	Gln	Val	Glu	Gln	Met	Leu	Ala	His	Leu	Thr				
			485					490					495						
Ser	Ala	Ser	Ala	Gln	Ala	Ala	Ala	Ala	Ser	Leu	Pro	Thr	Ser	Glu	Glu				
	500						505					510							
Asp	Leu	Cys	Pro	Ile	Cys	Tyr	Ala	His	Pro	Ile	Ser	Ala	Val	Phe	Gln				
	515					520						525							
Pro	Cys	Gly	His	Lys	Ser	Cys	Lys	Ala	Cys	Ile	Asn	Gln	His	Leu	Met				
530						535					540								
Asn	Asn	Lys	Asp	Cys	Phe	Phe	Cys	Lys	Thr	Thr	Ile	Val	Ser	Val	Glu				
545				550					555					560					
Asp	Trp	Glu	Lys	Gly	Ala	Asn	Thr	Ser	Thr	Thr	Ser	Ser	Ala	Ala					
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<210> 4281

<211> 507

<212> DNA

<213> Homo sapiens

<400> 4281

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120

gctgactctg agaggcagtg ggcttcccgc cagcacctcc ccctatcaca tttgtagggc

180

tggtttatga ggccggaagt aagcaagcac cccctcatat caacctggca cttcacaccc
 240
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 300
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 360
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 420
 tcagggttct tgtgtgtctc ataggcagct gcctatccct ggggtgataca gctccctggc
 480
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 507

<210> 4282

<211> 106

<212> PRT

<213> Homo sapiens

<400> 4282

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Asp	Leu	Leu	Lys	Cys	Leu	Trp	Leu	Pro	Ala	Ser	Gln	Pro	Ala	Pro	Pro
			20					25					30		
Leu	Ile	Thr	Met	Gly	Gly	Val	Lys	Cys	Gln	Val	Asp	Met	Arg	Gly	Cys
		35					40					45			
Leu	Leu	Thr	Ser	Gly	Leu	Ile	Asn	Gln	Pro	Tyr	Lys	Cys	Asp	Arg	Gly
		50				55					60				
Arg	Cys	Trp	Arg	Glu	Ala	His	Cys	Leu	Ser	Glu	Ser	Ala	Gln	Arg	Thr
65				70					75					80	
Glu	Ser	Gly	Asp	Ser	Trp	Gln	Lys	Arg	Gly	Gly	Leu	Arg	Leu	Trp	Gly
			85					90					95		
Ile	Trp	Pro	Ile	Gly	Gln	Leu	Trp	Gly	Ser						
			100					105							

<210> 4283

<211> 315

<212> DNA

<213> Homo sapiens

<400> 4283

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 120
 gggagaaacc gagtccccgc cgggtcccca ccgtgtggcg ccgaccgaaa taactccagt
 180
 ccagctgcaa aaaccctccc gaaaacccaa gcttgtccgg cacaacttcg gtctctccag
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 300
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 315

<210> 4284

<211> 91
 <212> PRT
 <213> Homo sapiens

<400> 4284
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 20 25 30
 Pro Pro Gly Pro His Arg Val Ala Pro Thr Glu Ile Thr Pro Val Gln
 35 40 45
 Leu Gln Lys Pro Ser Arg Lys Pro Lys Leu Val Arg His Asn Phe Gly
 50 55 60
 Leu Ser Ser Leu Ile Pro Ala Arg Thr Pro Pro Asn Cys Ser Pro Cys
 65 70 75 80
 Pro Ala Gln Arg Met Gln Arg Ser Arg Pro Xaa
 85 90

<210> 4285
 <211> 591
 <212> DNA
 <213> Homo sapiens

<400> 4285
 nagatctcag agaacttggt gaacattcag aaaatgcaga aaacgcaggt gaaatgccgc
 60
 aaaatcctga ccaagatgaa gcagcaggggt catgagacag ccgcctgtcc ggagactgaa
 120
 gagataccgc agggagccag tggctgctgg aaggatgacc tccagaagga actgagtgat
 180
 atatggtgat gccagcctg cagtctgacc cctgaccctc ctctgaaccc gttcccccaa
 240
 cgggatctgg cagtgaccac cagaacctgg agcccacctg agtccagact tccctcacc
 300
 cctaggactc accccaccac ggcccccaac cttagctgta ctgctgteta caccctgagc
 360
 agtgtggagt ctcccagcgc cccagctcc ttgtcttctt gcaggtctgc tgtgcacgtg
 420
 ctgcaggact ccatagacag cctcactttg tgctcggggg cctgtcccaa ggctcagagc
 480
 ctaagaggcc acaagggcac cagtgcctga gccctccact cccctcctgg gactctgact
 540
 ccgactgtga ccaggacctc tcccagccac ctttcagcaa gagcggccgc a
 591

<210> 4286
 <211> 106
 <212> PRT
 <213> Homo sapiens

<400> 4286
 Cys Pro Ala Cys Ser Leu Thr Pro Asp Pro Pro Leu Asn Pro Phe Pro
 1 5 10 15
 Gln Arg Asp Leu Ala Val Thr Thr Arg Thr Trp Ser Pro Pro Glu Ser

			20					25					30			
Arg	Leu	Pro	Ser	Pro	Pro	Arg	Thr	His	Pro	Thr	Thr	Ala	Pro	Asn	Leu	
		35					40					45				
Ser	Cys	Thr	Ala	Val	Tyr	Thr	Leu	Ser	Ser	Val	Glu	Ser	Pro	Ser	Ala	
	50					55					60					
Pro	Ser	Ser	Leu	Ser	Ser	Cys	Arg	Ser	Ala	Val	His	Val	Leu	Gln	Asp	
65					70					75					80	
Ser	Ile	Asp	Ser	Leu	Thr	Leu	Cys	Ser	Gly	Ala	Cys	Pro	Lys	Ala	Ser	
				85					90					95		
Ser	Leu	Arg	Gly	His	Lys	Gly	Thr	Ser	Ala							
			100					105								

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<210> 4287
<211> 868
<212> DNA
<213> Homo sapiens
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<400> 4287
cgagggcgcg actgcggggt tcctggtgct gaggacggac gccattggag tccccgagaa
60
ggctgagctc tcatctccct gggacccgca gcatggctga ggggaagcttc agcgtgcaat
120
cggaaagcta cagtgttgaa gacatggatg agggtagcga cgaagtcggg gaggaagaga
180
tggttgaagg caacgactat gaagaattcg gtgcgtttgg tggctatggc accctcacca
240
gctttgacat ccatatcctc agagccttcg gaagcttggg tccaggcctt cgcattctat
300
cgaatgagcc ctgggaactg gaaaaccnct gtgctggccc agaccctggt ggaggcattg
360
cagctggatc cggaaacact tgccaatgag acggccgccc gtgctgccaa cgtagcccg
420
gccgccgcct ccaaccgtgc ggctcgggcc gctgccgcg ctgccgtac cgccttcagt
480
caggtggtcg ctagccaccg ggtggccacg ccgcaggtct caggagagga taccagccc
540
acgacctacg ccgccgaggc tcagggggccc acccctgagc cacccttgc ttctccgcag
600
acctcccaga tgtagtcac cagtaagatg gctgcccccg aggctccggc aacctccgca
660
cagtcccaga caggctcccc ggcccaggag gctgctactg agggccctag tagcgctgt
720
gcattctctc aggtccgtg tgccaggag gtggacgcca accggcccag cacagccttc
780
ctgggcccaga atgatgtctt cgatttcact cagccggcag tgtcagtggc atggcttccc
840
gcgcccaga gacctgccc gccaagag
868

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<210> 4288
<211> 240
<212> PRT
<213> Homo sapiens
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<400> 4288

Met Arg Val Ala Thr Lys Ser Gly Arg Lys Arg Trp Leu Lys Ala Thr
 1 5 10 15
 Thr Met Lys Asn Ser Val Arg Leu Val Ala Met Ala Pro Ser Pro Ala
 20 25 30
 Leu Thr Ser Ile Ser Ser Glu Pro Ser Glu Ala Trp Val Gln Ala Phe
 35 40 45
 Ala Ser Tyr Arg Met Ser Pro Gly Asn Trp Lys Thr Xaa Val Leu Ala
 50 55 60
 Gln Thr Leu Val Glu Ala Leu Gln Leu Asp Pro Glu Thr Leu Ala Asn
 65 70 75 80
 Glu Thr Ala Ala Arg Ala Ala Asn Val Ala Arg Ala Ala Ala Ser Asn
 85 90 95
 Arg Ala Ala Arg Ala Ala Ala Ala Ala Arg Thr Ala Phe Ser Gln
 100 105 110
 Val Val Ala Ser His Arg Val Ala Thr Pro Gln Val Ser Gly Glu Asp
 115 120 125
 Thr Gln Pro Thr Thr Tyr Ala Ala Glu Ala Gln Gly Pro Thr Pro Glu
 130 135 140
 Pro Pro Leu Ala Ser Pro Gln Thr Ser Gln Met Leu Val Thr Ser Lys
 145 150 155 160
 Met Ala Ala Pro Glu Ala Pro Ala Thr Ser Ala Gln Ser Gln Thr Gly
 165 170 175
 Ser Pro Ala Gln Glu Ala Ala Thr Glu Gly Pro Ser Ser Ala Cys Ala
 180 185 190
 Phe Ser Gln Ala Pro Cys Ala Arg Glu Val Asp Ala Asn Arg Pro Ser
 195 200 205
 Thr Ala Phe Leu Gly Gln Asn Asp Val Phe Asp Phe Thr Gln Pro Ala
 210 215 220
 Val Ser Val Ala Trp Leu Pro Ala Pro Lys Arg Pro Ala Gln Pro Arg
 225 230 235 240

<210> 4289

<211> 353

<212> DNA

<213> Homo sapiens

<400> 4289

ggatccctgg gaagatgact accctgcctg tgcgggatat gagggagaaa tatgggagcc
 60
 tcctcacttc aggtgtcact gctcagcata tatccaggct ttgttttcat attggtcttg
 120
 caaagagcct tttgggaaca gttttcttat tgaaacatac tcagtgttta aacctgcagg
 180
 tgtgggttgg tggcagtcca catggcatcc tttgctctgt ccctgttctc ctgtctctgg
 240
 ctattcaggt tcccgtgagg atactgtcac ccttgaataa tggagcttgc ggaagaccaa
 300
 gccctgtttt ttggagtcct tgtgctgagg ccgctgtaac ttgcggagag ttg
 353

<210> 4290

<211> 113

<212> PRT

<213> Homo sapiens

<400> 4290

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Met Thr Thr Leu Pro Val Arg Asp Met Arg Glu Lys Tyr Gly Ser Leu
 1           5           10           15
Leu Thr Ser Gly Val Thr Ala Gln His Ile Ser Arg Leu Cys Phe His
      20           25           30
Ile Gly Leu Ala Lys Ser Leu Leu Gly Thr Val Phe Leu Leu Lys His
      35           40           45
Thr Gln Cys Leu Asn Leu Gln Val Trp Val Gly Gly Ser Pro His Gly
      50           55           60
Ile Leu Cys Ser Val Pro Val Leu Leu Ser Leu Ala Ile Gln Val Pro
65           70           75           80
Val Arg Ile Leu Ser Pro Leu Asn Asn Gly Ala Cys Gly Arg Pro Ser
      85           90           95
Pro Cys Phe Trp Ser Pro Cys Ala Glu Ala Ala Val Thr Cys Gly Glu
      100          105          110
Leu

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<210> 4291

<211> 517

<212> DNA

<213> Homo sapiens

<400> 4291

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nnaaatttgc caagccaaga gttaccccag gaagattctc tcttacatgg ccaattttca
60
caagcagtca ctcccctagc ccatcatcac acagattatt caaagcccac cgatatctca
120
tggagagaca cacttttctca gaagtttgga tcctcagatc acttgagaaa actattttaag
180
atggatgaag caagtgccca gctccttget tataaggaaa aaggccattc tcagagttca
240
caattttcct ctgatcaaga aatagctcat ctgctgcctg aaaatgtgag tgcgctccca
300
gctacggtgg cagttgcttc tccacatacc acctcggtta ctccaaagcc cgccaccctt
360
ctaccacca atgcttcagt gacaccttct gggacttccc agccacagct ggccaccaca
420
gctccacctg taaccactgt cacttctcag cctcccacga cctcatttc tacagttttt
480
acacgggctg tggtacact ccaagcaatg gctacaa
517

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<210> 4292

<211> 172

<212> PRT

<213> Homo sapiens

<400> 4292

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Xaa Asn Leu Pro Ser Gln Glu Leu Pro Gln Glu Asp Ser Leu Leu His
 1           5           10           15
Gly Gln Phe Ser Gln Ala Val Thr Pro Leu Ala His His His Thr Asp

```

			20					25					30			
Tyr	Ser	Lys	Pro	Thr	Asp	Ile	Ser	Trp	Arg	Asp	Thr	Leu	Ser	Gln	Lys	
		35					40					45				
Phe	Gly	Ser	Ser	Asp	His	Leu	Glu	Lys	Leu	Phe	Lys	Met	Asp	Glu	Ala	
	50					55					60					
Ser	Ala	Gln	Leu	Leu	Ala	Tyr	Lys	Glu	Lys	Gly	His	Ser	Gln	Ser	Ser	
65					70					75					80	
Gln	Phe	Ser	Ser	Asp	Gln	Glu	Ile	Ala	His	Leu	Leu	Pro	Glu	Asn	Val	
				85				90						95		
Ser	Ala	Leu	Pro	Ala	Thr	Val	Ala	Val	Ala	Ser	Pro	His	Thr	Thr	Ser	
			100					105					110			
Ala	Thr	Pro	Lys	Pro	Ala	Thr	Leu	Leu	Pro	Thr	Asn	Ala	Ser	Val	Thr	
		115					120				125					
Pro	Ser	Gly	Thr	Ser	Gln	Pro	Gln	Leu	Ala	Thr	Thr	Ala	Pro	Pro	Val	
	130					135					140					
Thr	Thr	Val	Thr	Ser	Gln	Pro	Pro	Thr	Thr	Leu	Ile	Ser	Thr	Val	Phe	
145					150					155					160	
Thr	Arg	Ala	Val	Ala	Thr	Leu	Gln	Ala	Met	Ala	Thr					
				165				170								

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<210> 4293
<211> 547
<212> DNA
<213> Homo sapiens
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<400> 4293
gccggcgccc cgggcgcgga tgcctgctct gtgcctgtat ctgagatcat cgccgttgag
60
gaaacagacg ttcacgggaa acatcaaggc agtggaaaat ggcagaaaat ggaaaagcct
120
tacgctttta cagttcactg tgtaaagaga gcacgacggc accgctggaa gtgggcgcag
180
gtgactttct ggtgtccaga ggagcagctg tgtcacttgt ggctgcagac cctgcgggag
240
atgctggaga agctgacgtc cagaccaaag catttactgg tattttatcaa cccgtttgga
300
ggaaaaggac aaggcaagcg gatatatgaa agaaaagtgg caccactgtt caccttagcc
360
tccatcacca ctgacatcat cgttactgaa catgctaatc aggccaagga gactctgtat
420
gagattaaca tagacaaata cgacggcatc gtctgtgtcg gcggagatgg tatgttcagc
480
gaggtgctgc acggtctgat tgggaggacg cagaggagcg ccggggtcga ccagaaccac
540
ccccggg
547

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<210> 4294
<211> 182
<212> PRT
<213> Homo sapiens
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<400> 4294
Ala Gly Ala Pro Gly Ala Asp Ala Cys Ser Val Pro Val Ser Glu Ile

1				5					10					15				
Ile	Ala	Val	Glu	Glu	Thr	Asp	Val	His	Gly	Lys	His	Gln	Gly	Ser	Gly			
			20						25					30				
Lys	Trp	Gln	Lys	Met	Glu	Lys	Pro	Tyr	Ala	Phe	Thr	Val	His	Cys	Val			
		35						40					45					
Lys	Arg	Ala	Arg	Arg	His	Arg	Trp	Lys	Trp	Ala	Gln	Val	Thr	Phe	Trp			
	50					55					60							
Cys	Pro	Glu	Glu	Gln	Leu	Cys	His	Leu	Trp	Leu	Gln	Thr	Leu	Arg	Glu			
65					70					75					80			
Met	Leu	Glu	Lys	Leu	Thr	Ser	Arg	Pro	Lys	His	Leu	Leu	Val	Phe	Ile			
				85					90					95				
Asn	Pro	Phe	Gly	Gly	Lys	Gly	Gln	Gly	Lys	Arg	Ile	Tyr	Glu	Arg	Lys			
		100						105					110					
Val	Ala	Pro	Leu	Phe	Thr	Leu	Ala	Ser	Ile	Thr	Thr	Asp	Ile	Ile	Val			
	115							120				125						
Thr	Glu	His	Ala	Asn	Gln	Ala	Lys	Glu	Thr	Leu	Tyr	Glu	Ile	Asn	Ile			
	130					135					140							
Asp	Lys	Tyr	Asp	Gly	Ile	Val	Cys	Val	Gly	Gly	Asp	Gly	Met	Phe	Ser			
145					150				155					160				
Glu	Val	Leu	His	Gly	Leu	Ile	Gly	Arg	Thr	Gln	Arg	Ser	Ala	Gly	Val			
				165				170						175				
Asp	Gln	Asn	His	Pro	Arg													
			180															

<210> 4295

<211> 431

<212> DNA

<213> Homo sapiens

<400> 4295

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nntctagaaa atcactgtct ccttctacce tgccatctct acaccagggt tacaacaag
60
agccactgc tggctccttg ttttgtaa at aagatttggt ggactacagc tatgcccgta
120
catgtacatt ttgtgtatgg ctgcttttgt gccacaacag cagggttgag tattgcgaca
180
gagaccccca ttgccacaaa gcctaaaaca tttgccatcg agccctttaa gaaagagttt
240
gctggccgtg cgcgggtggc gtggctcccg cctgtaatcc cagcactttg gaaggctgag
300
gcaggcgggtg aggtctggag ttcgaaacca gcctggccag cgtggcgaaa ccctgtctcc
360
ccctcccaga ttcacgtgat tatcccacct cagcctcctg agtacctggg actataggcg
420
cgtgccaacc a
431

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<210> 4296

<211> 138

<212> PRT

<213> Homo sapiens

<400> 4296

Xaa Leu Glu Asn His Cys Leu Leu Leu Pro Cys His Leu Tyr Thr Arg

1	5	10	15
Val Thr Asn Lys Ser Pro Leu Leu Ala Pro Cys Phe Val Asn Lys Ile			
	20	25	30
Cys Trp Thr Thr Ala Met Pro Val His Val His Phe Val Tyr Gly Cys			
	35	40	45
Phe Cys Ala Thr Thr Ala Gly Leu Ser Ile Ala Thr Glu Thr Pro Ile			
	50	55	60
Ala His Lys Pro Lys Thr Phe Ala Ile Glu Pro Phe Lys Lys Glu Phe			
65	70	75	80
Ala Gly Arg Ala Arg Trp Pro Trp Leu Pro Pro Val Ile Pro Ala Leu			
	85	90	95
Trp Lys Ala Glu Ala Gly Gly Glu Val Trp Ser Ser Lys Pro Ala Trp			
	100	105	110
Pro Ala Trp Arg Asn Pro Val Ser Pro Ser Gln Ile His Val Ile Ile			
	115	120	125
Pro Pro Gln Pro Pro Glu Tyr Leu Gly Leu			
130	135		

<210> 4297

<211> 1668

<212> DNA

<213> Homo sapiens

<400> 4297

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nccatggact cggcctttgt gggataaaag gtcaaccaag tgtcagctgc agttggaaaa
60
gatttcaccg tgattccatc taaactgatt cagtttgacc caggaatgtc aactaagatg
120
tggaatatag caattaccta tgacggatta gaggaagatg atgaggtctt tgaagtaatt
180
ctgaactccc ctgtgaatgc agttcttggc acaaagacaa aagctgcagt gaaaattttg
240
gactcaaaag gaggacaatg ccattccttca tattcctcca accaaagcaa gcacagcaca
300
tgggagaagg gcatttggca tctgctgccc ccagggtctt cctcatccac cacttctggt
360
tcctttcatc tggaagaag acctcttcca tcttccatgc agctagcagt catcagggga
420
gacaccctgc ggggctttga ttctacagat ctttctcaaa ggaagcttag gaccctgagg
480
aatggcaaaa cagttcgtcc atcctctggt tatagaaatg gaacagacat catctataat
540
tatcatggga tagtttcctt gaaactggag gatgacagtt tcccaactca caaaaggaag
600
gccaaagtat ccattcattag tcagccacaa aagacaatca aagtggcaga actgcctcaa
660
gcagataagg tggaatccac aactgactca cacttcccca gacaggacca gttgccctca
720
tttccaaaga actgcactct ggaattaaag ggactcttcc attttgaaga aggcattccag
780
aagctgtatc agtgcaatgg gatcgcttgg aaagcctgga gtccccaac caaggatgtg
840
gaagacaaat cctgtccagc cgggtggcac cagcactcag gctactgtca catcttgatc
900

```

acagagcaga aaggcacctg gaatgcggct gcccaagctt gcaggggaaca atacctgggc
 960
 aaccttgtaa ctgtattctc caggcagcac atgcggtggc tctgggacat tgggtgggaga
 1020
 aagtcctttt ggataggttt gaacgaccaa gtgcatgctg gccactggga gtggatcggc
 1080
 ggtgaacctg ttgccttcac caatgggaga agagggccct ctccacgctc caagcttgga
 1140
 aagagctgtg ttttggttca aagacaaggg aaatggcaaa caaaagactg taggagagcc
 1200
 aaacctcata attatgtgtg ttccagaaaa ctctaaatat aacagaccct acaggggggc
 1260
 acctggagtt tgtcacctat ttattcacag gatctgtgaa tattgctcca tagaaaacaa
 1320
 attgttatga ttgagtgggt atacctttgt gattctgtct agtgaaaatg ggacattttt
 1380
 aatagtgccca gaaagattga taaataaata ttttttacia gataagatac aatttttgta
 1440
 tctcaatacc ttttaaaata aatgccagca gtattaaaaa gtgtaagggt tgtttattcc
 1500
 agaagaccct cacccttacc ccattccaaa tctcaggag caccagtctc atagtccttg
 1560
 gatttttttt aaaaaaatt tttggtcccg ttacctctaa tgaatttatt ctgaaatatg
 1620
 tatcgtaggt gctcctacca ctttagtctg agtggaaagc caaaaaac
 1668

<210> 4298

<211> 411

<212> PRT

<213> Homo sapiens

<400> 4298

Xaa	Met	Asp	Ser	Ala	Phe	Val	Gly	Ile	Lys	Val	Asn	Gln	Val	Ser	Ala
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Ala	Val	Gly	Lys	Asp	Phe	Thr	Val	Ile	Pro	Ser	Lys	Leu	Ile	Gln	Phe
		20					25					30			
Asp	Pro	Gly	Met	Ser	Thr	Lys	Met	Trp	Asn	Ile	Ala	Ile	Thr	Tyr	Asp
		35				40					45				
Gly	Leu	Glu	Glu	Asp	Asp	Glu	Val	Phe	Glu	Val	Ile	Leu	Asn	Ser	Pro
	50				55			60							
Val	Asn	Ala	Val	Leu	Gly	Thr	Lys	Thr	Lys	Ala	Ala	Val	Lys	Ile	Leu
65				70				75					80		
Asp	Ser	Lys	Gly	Gly	Gln	Cys	His	Pro	Ser	Tyr	Ser	Ser	Asn	Gln	Ser
			85					90					95		
Lys	His	Ser	Thr	Trp	Glu	Lys	Gly	Ile	Trp	His	Leu	Leu	Pro	Pro	Gly
			100				105					110			
Ser	Ser	Ser	Ser	Thr	Thr	Ser	Gly	Ser	Phe	His	Leu	Glu	Arg	Arg	Pro
		115				120					125				
Leu	Pro	Ser	Ser	Met	Gln	Leu	Ala	Val	Ile	Arg	Gly	Asp	Thr	Leu	Arg
	130				135						140				
Gly	Phe	Asp	Ser	Thr	Asp	Leu	Ser	Gln	Arg	Lys	Leu	Arg	Thr	Arg	Gly
145				150				155					160		
Asn	Gly	Lys	Thr	Val	Arg	Pro	Ser	Ser	Val	Tyr	Arg	Asn	Gly	Thr	Asp

				165					170					175		
Ile	Ile	Tyr	Asn	Tyr	His	Gly	Ile	Val	Ser	Leu	Lys	Leu	Glu	Asp	Asp	
			180					185					190			
Ser	Phe	Pro	Thr	His	Lys	Arg	Lys	Ala	Lys	Val	Ser	Ile	Ile	Ser	Gln	
		195					200					205				
Pro	Gln	Lys	Thr	Ile	Lys	Val	Ala	Glu	Leu	Pro	Gln	Ala	Asp	Lys	Val	
	210					215					220					
Glu	Ser	Thr	Thr	Asp	Ser	His	Phe	Pro	Arg	Gln	Asp	Gln	Leu	Pro	Ser	
225				230						235					240	
Phe	Pro	Lys	Asn	Cys	Thr	Leu	Glu	Leu	Lys	Gly	Leu	Phe	His	Phe	Glu	
			245						250					255		
Glu	Gly	Ile	Gln	Lys	Leu	Tyr	Gln	Cys	Asn	Gly	Ile	Ala	Trp	Lys	Ala	
			260				265						270			
Trp	Ser	Pro	Gln	Thr	Lys	Asp	Val	Glu	Asp	Lys	Ser	Cys	Pro	Ala	Gly	
	275						280					285				
Trp	His	Gln	His	Ser	Gly	Tyr	Cys	His	Ile	Leu	Ile	Thr	Glu	Gln	Lys	
	290				295						300					
Gly	Thr	Trp	Asn	Ala	Ala	Ala	Gln	Ala	Cys	Arg	Glu	Gln	Tyr	Leu	Gly	
305				310						315					320	
Asn	Leu	Val	Thr	Val	Phe	Ser	Arg	Gln	His	Met	Arg	Trp	Leu	Trp	Asp	
			325						330					335		
Ile	Gly	Gly	Arg	Lys	Ser	Phe	Trp	Ile	Gly	Leu	Asn	Asp	Gln	Val	His	
			340					345					350			
Ala	Gly	His	Trp	Glu	Trp	Ile	Gly	Gly	Glu	Pro	Val	Ala	Phe	Thr	Asn	
	355						360					365				
Gly	Arg	Arg	Gly	Pro	Ser	Pro	Arg	Ser	Lys	Leu	Gly	Lys	Ser	Cys	Val	
	370					375					380					
Leu	Val	Gln	Arg	Gln	Gly	Lys	Trp	Gln	Thr	Lys	Asp	Cys	Arg	Arg	Ala	
385				390						395					400	
Lys	Pro	His	Asn	Tyr	Val	Cys	Ser	Arg	Lys	Leu						
			405						410							

<210> 4299

<211> 988

<212> DNA

<213> Homo sapiens

<400> 4299

nngcgaccgc	tcttgctgaa	aggtggctgg	gagaggtcct	ggtcagagtc	ggagtcagag
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120					
ccttgggaca	ggcccccgag	cacaaagtga	ggctgtctat	ggagttctgc	agcacgtgca
180					
cagcagacca	tatatcactc	agttccttct	ggaggtcatc	cttcacgcag	ccactggctc
240					
cctgcggtat	ctcttcagtc	tccggacagg	cggctgtctc	atgaccctgc	tgcttcatct
300					
tggtcaggat	tttgcggcac	ttcacctgcg	ttttctgcat	tttctgaatg	ttcaccaagt
360					
tctctgagat	ctcatcctcc	tgcgcttgga	gcttctgata	gatgaaggtc	acctcctccc
420					
gcaccagttc	cagctcctcc	cacaggaact	tcttgctgtc	ccggatctcc	tgggccagca
480					

gctgcaggca gcgagtggg cgggcccgc gcatctctc actgtcacgc agggctctct
540
ccagcccctg aaggccttgg gtcagggccc catacagctc ctgccggccc tgctccatgc
600
cccacttggt ctctctcttc tctccatggc ggctgtggg gctcagcacc tcttcaagct
660
gctgaatctt gatttgctgc aagcagctct ccttctccaa catggtcact gagggttca
720
ggaactcgaa agccttggtc tgggctgtg actggctctt gaggactca agttcacatc
780
gcaggagctt ctgggagtcg ggaatcatca caatggctctt ggctttgact ttggaagagc
840
tggtctccaa gggcttcaca taccacctgt tcatgctctn cccatcaggg accacgaagc
900
cagtcctcag ctgtgacgct gaagtttgat cccgcgggga caccatcgta ttaaaacgct
960
cagagactga gtcacagaga ggggtgtc
988

<210> 4300

<211> 84

<212> PRT

<213> Homo sapiens

<400> 4300

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		20					25				30				
Val	Ser	Leu	Gln	Ser	Pro	Asp	Arg	Arg	Leu	Ser	His	Asp	Pro	Ala	Ala
		35				40					45				
Ser	Ser	Trp	Ser	Gly	Phe	Cys	Gly	Ile	Ser	Pro	Ala	Phe	Ser	Ala	Phe
	50					55				60					
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<210> 4301

<211> 2429

<212> DNA

<213> Homo sapiens

<400> 4301

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<210> 4302

<211> 717

<212> PRT

<213> Homo sapiens

<400> 4302

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			20					25					30		
Glu	Gly	Val	Gly	Gly	Gly	Ala	Ser	Ala	Leu	Thr	Ser	Gly	Ile	Ala	Ser
		35				40						45			
Ser	Pro	Asp	Tyr	Glu	Phe	Asn	Val	Trp	Thr	Arg	Pro	Asp	Cys	Ala	Glu
	50					55					60				
Thr	Glu	Phe	Glu	Asn	Gly	Asn	Arg	Ser	Trp	Phe	Tyr	Phe	Ser	Val	Arg
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Gly	Gly	Met	Pro	Gly	Lys	Leu	Ile	Lys	Ile	Asn	Ile	Met	Asn	Met	Asn
			85					90						95	
Lys	Gln	Ser	Lys	Leu	Tyr	Ser	Gln	Gly	Met	Ala	Pro	Phe	Val	Arg	Thr
			100					105					110		
Leu	Pro	Thr	Arg	Pro	Arg	Trp	Glu	Arg	Ile	Arg	Asp	Arg	Pro	Thr	Phe
		115					120				125				
Glu	Met	Thr	Glu	Thr	Gln	Phe	Val	Leu	Ser	Phe	Val	His	Arg	Phe	Val
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Glu	Gly	Arg	Gly	Ala	Thr	Thr	Phe	Phe	Ala	Phe	Cys	Tyr	Pro	Phe	Ser
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Tyr	Ser	Asp	Cys	Gln	Glu	Leu	Leu	Asn	Gln	Leu	Asp	Gln	Arg	Phe	Pro
			165					170						175	
Glu	Asn	His	Pro	Thr	His	Ser	Ser	Pro	Leu	Asp	Thr	Ile	Tyr	Tyr	His
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Arg	Glu	Leu	Leu	Cys	Tyr	Ser	Leu	Asp	Gly	Leu	Arg	Val	Asp	Leu	Leu
		195					200					205			
Thr	Ile	Thr	Ser	Cys	His	Gly	Leu	Arg	Glu	Asp	Arg	Glu	Pro	Arg	Leu
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Glu	Gln	Leu	Phe	Pro	Asp	Thr	Ser	Thr	Pro	Arg	Pro	Phe	Arg	Phe	Ala

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Gly	Lys	Arg	Ile	Phe	Phe	Leu	Ser	Ser	Arg	Val	His	Pro	Gly	Glu	Thr
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Pro	Ser	Ser	Phe	Val	Phe	Asn	Gly	Phe	Leu	Asp	Phe	Ile	Leu	Arg	Pro
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Asp	Asp	Pro	Arg	Ala	Gln	Thr	Leu	Arg	Arg	Leu	Phe	Val	Phe	Lys	Leu
		275					280					285			
Ile	Pro	Met	Leu	Asn	Pro	Asp	Gly	Val	Val	Arg	Gly	His	Tyr	Arg	Thr
	290					295					300				
Asp	Ser	Arg	Gly	Val	Asn	Leu	Asn	Arg	Gln	Tyr	Leu	Lys	Pro	Asp	Ala
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Val	Leu	His	Pro	Ala	Ile	Tyr	Gly	Ala	Lys	Ala	Val	Leu	Leu	Tyr	His
				325					330					335	
His	Val	His	Ser	Arg	Leu	Asn	Ser	Gln	Ser	Ser	Ser	Glu	His	Gln	Pro
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Ser	Ser	Cys	Leu	Pro	Pro	Asp	Ala	Pro	Val	Ser	Asp	Leu	Glu	Lys	Ala
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385					390					395					400
Ser	Val	Trp	Ile	Met	Pro	Gln	Gln	Ser	Ala	Gly	Leu	Glu	Glu	Ser	Ala
				405					410					415	
Pro	Asp	Thr	Ile	Pro	Pro	Lys	Glu	Ser	Gly	Val	Ala	Tyr	Tyr	Val	Asp
		420						425				430			
Leu	His	Gly	His	Ala	Ser	Lys	Arg	Gly	Cys	Phe	Met	Tyr	Gly	Asn	Ser
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Phe	Ser	Asp	Glu	Ser	Thr	Gln	Val	Glu	Asn	Met	Leu	Tyr	Pro	Lys	Leu
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Ile	Ser	Leu	Asn	Ser	Ala	His	Phe	Asp	Phe	Gln	Gly	Cys	Asn	Phe	Ser
465					470					475					480
Glu	Lys	Asn	Met	Tyr	Ala	Arg	Asp	Arg	Arg	Asp	Gly	Gln	Ser	Lys	Glu
				485					490					495	
Gly	Ser	Gly	Arg	Val	Ala	Ile	Tyr	Lys	Ala	Ser	Gly	Ile	Ile	His	Ser
			500					505				510			
Tyr	Thr	Leu	Glu	Cys	Asn	Tyr	Asn	Thr	Gly	Arg	Ser	Val	Asn	Ser	Ile
		515					520					525			
Pro	Ala	Ala	Cys	His	Asp	Asn	Gly	Arg	Ala	Ser	Pro	Pro	Pro	Pro	Pro
	530					535					540				
Ala	Phe	Pro	Ser	Arg	Tyr	Thr	Val	Glu	Leu	Phe	Glu	Gln	Val	Gly	Arg
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Ala	Met	Ala	Ile	Ala	Ala	Leu	Asp	Met	Ala	Glu	Cys	Asn	Pro	Trp	Pro
				565					570					575	
Arg	Ile	Val	Leu	Ser	Glu	His	Ser	Ser	Leu	Thr	Asn	Leu	Arg	Ala	Trp
			580					585				590			
Met	Leu	Lys	His	Val	Arg	Asn	Ser	Arg	Gly	Leu	Ser	Ser	Thr	Leu	Asn
		595					600					605			
Val	Gly	Val	Asn	Lys	Lys	Arg	Gly	Leu	Arg	Thr	Pro	Pro	Lys	Ser	His
	610					615					620				
Asn	Gly	Leu	Pro	Val	Ser	Cys	Ser	Glu	Asn	Thr	Leu	Ser	Arg	Ala	Arg
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Ser	Phe	Ser	Thr	Gly	Thr	Ser	Ala	Gly	Gly	Ser	Ser	Ser	Ser	Gln	Gln
				645					650					655	
Asn	Ser	Pro	Gln	Met	Lys	Asn	Ser	Pro	Ser	Phe	Pro	Phe	His	Gly	Ser

			660					665					670				
Arg	Pro	Ala	Gly	Leu	Pro	Gly	Leu	Gly	Ser	Ser	Thr	Gln	Lys	Val	Thr		
		675						680					685				
His	Arg	Val	Leu	Gly	Pro	Val	Arg	Gly	Lys	Pro	Val	Trp	Glu	Pro	Leu		
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<210> 4303

<211> 768

<212> DNA

<213> Homo sapiens

<400> 4303

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660
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768

<210> 4304

<211> 256

<212> PRT

<213> Homo sapiens

<400> 4304

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Lys	Leu	Leu	Phe	Gln	Glu	Ala	His	Asn	Gly	Pro	Ala	Val	Glu	Ala	Gln
			20					25					30		
Glu	Glu	Glu	Glu	Glu	Gln	Asp	His	Gly	Val	Gly	Arg	Thr	Gly	Thr	Val
		35					40					45			
Asn	Ser	Val	Gly	Ser	Asn	Gln	Ser	Ile	Pro	Ser	Met	Ser	Ile	Ser	Ala

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65	70	75
Lys Ser Glu Leu Asp Met Met Glu Gly Asp His Thr Val Met Ser Asn		80
	85	90
Ser Ser Val Ile His Leu Lys Pro Glu Glu Glu Asn Tyr Arg Glu Glu		95
	100	105
Gly Asp Pro Arg Thr Arg Ala Ser Asp Pro Gln Ser Pro Pro Gln Val		110
	115	120
Ser Arg His Lys Ser His Tyr Arg Asn Arg Glu His Phe Ala Thr Ile		125
	130	135
Arg Thr Ala Ser Leu Val Thr Arg Gln Met Gln Glu His Glu Gln Asp		140
145	150	155
Ser Glu Leu Arg Glu Gln Met Ser Gly Tyr Lys Arg Met Arg Arg Gln		160
	165	170
His Gln Lys Gln Leu Met Thr Leu Glu Asn Lys Leu Lys Ala Glu Met		175
	180	185
Asp Glu His Arg Leu Arg Leu Asp Lys Asp Leu Glu Thr Gln Arg Asn		190
	195	200
Asn Phe Ala Ala Glu Met Glu Lys Leu Ile Lys Lys His Gln Ala Ala		205
	210	215
Met Glu Lys Glu Ala Lys Val Met Ser Asn Glu Glu Lys Lys Phe Gln		220
225	230	235
Gln His Ile Gln Ala Gln Gln Lys Lys Glu Leu Asn Ser Phe Leu Glu		240
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<210> 4305

<211> 3400

<212> DNA

<213> Homo sapiens

<400> 4305

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<210> 4306

<211> 1052

<212> PRT

<213> Homo sapiens

<400> 4306

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			20					25					30		
Thr	Leu	Thr	Ala	Ala	Gly	Ala	Cys	Pro	Gly	Ala	Gly	Ala	Asp	Ala	Leu
		35					40					45			
Glu	Ser	Pro	Ala	Ser	Pro	Gln	Leu	Val	Leu	Pro	Ala	Asn	Leu	Gly	Asp
	50					55					60				
Ile	Glu	Ala	Leu	Asn	Leu	Gly	Asn	Asn	Gly	Leu	Glu	Glu	Val	Pro	Glu

65					70					75				80	
Gly	Leu	Gly	Ser	Ala	Leu	Gly	Ser	Leu	Arg	Val	Leu	Val	Leu	Arg	Arg
				85					90					95	
Asn	Arg	Phe	Ala	Arg	Leu	Pro	Pro	Ala	Val	Ala	Glu	Leu	Gly	His	His
			100					105					110		
Leu	Thr	Glu	Leu	Asp	Val	Ser	His	Asn	Arg	Leu	Thr	Ala	Leu	Gly	Ala
		115					120					125			
Glu	Val	Val	Ser	Ala	Leu	Arg	Glu	Leu	Arg	Lys	Leu	Asn	Leu	Ser	His
	130					135				140					
Asn	Gln	Leu	Pro	Ala	Leu	Pro	Ala	Gln	Leu	Gly	Ala	Leu	Ala	His	Leu
145					150					155					160
Glu	Glu	Leu	Asp	Val	Ser	Phe	Asn	Arg	Leu	Ala	His	Leu	Pro	Asp	Ser
			165					170						175	
Leu	Ser	Cys	Leu	Ser	Arg	Leu	Arg	Thr	Leu	Asp	Val	Asp	His	Asn	Gln
		180						185					190		
Leu	Thr	Ala	Phe	Pro	Arg	Gln	Leu	Leu	Gln	Leu	Val	Ala	Leu	Glu	Glu
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Leu	Asp	Val	Ser	Ser	Asn	Arg	Leu	Arg	Gly	Leu	Pro	Glu	Asp	Ile	Ser
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Ala	Leu	Arg	Ala	Leu	Lys	Ile	Leu	Trp	Leu	Ser	Gly	Ala	Glu	Leu	Gly
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Thr	Leu	Pro	Ala	Gly	Phe	Cys	Glu	Leu	Ala	Ser	Leu	Glu	Ser	Leu	Met
			245					250						255	
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His	Ser	Gln	Pro	Ala	Val	Gln	Pro	Arg	Leu	Lys	Leu	Leu	Leu	Met	Gly
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Arg	Val	Glu	Gly	Cys	Pro	Gly	Gly	Gly	Asp	Lys	Glu	Lys	Cys	Tyr	Pro
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Pro	Ser	Pro	Pro	Pro	Val	Ser	Lys	Gly	Ile	Glu	Val	Thr	Ser	Trp	Thr
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Asp	Glu	Ser	Tyr	Glu	Val	Ile	Gln	Pro	Phe	Phe	Leu	Ser	Pro	Gly	Ala
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Pro	Thr	Thr	Val	Gly	Ser	Phe	Leu	His	Arg	Val	Gly	Ala	Arg	Val	Pro		
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Asn	Ala	Val	Val	Cys	Ile	Val	Gly	Thr	His	Ala	Asp	Leu	Cys	Gly	Glu		
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Arg	Glu	Leu	Glu	Glu	Lys	Cys	Leu	Asp	Ile	His	Arg	Gln	Ile	Ala	Leu		
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Gln	Glu	Lys	His	Asp	Ala	Glu	Gly	Leu	Ser	Arg	Leu	Ala	Lys	Val	Val		
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Asp	Glu	Ala	Leu	Ala	Arg	Asp	Phe	Glu	Leu	Arg	Ser	Ala	Ser	Pro	His		
			580						585						590		
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His	Phe	Gln	Tyr	Leu	Leu	Asn	His	Arg	Leu	Gln	Ile	Leu	Ser	Pro	Val		
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Ala	Leu	Lys	Glu	His	Val	Phe	His	Asn	Leu	Thr	Arg	Leu	Ile	Asp	Ile		
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			755						760						765		
Pro	Met	Ala	Arg	Ser	Thr	Pro	Ser	Gln	Glu	Leu	Leu	Arg	Ala	Thr	Gln		
			770						775						780		
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785						790						795					800
His	Val	Ile	Arg	Leu	Leu	Leu	Lys	Pro	His	Val	Gln	Ala	Gln	Gln	Asp		
			805						810						815		
Leu	Gln	Leu	Leu	Leu	Glu	Leu	Leu	Glu	Lys	Met	Gly	Leu	Cys	Tyr	Cys		
			820						825						830		
Leu	Asn	Lys	Pro	Lys	Gly	Lys	Pro	Leu	Asn	Gly	Ser	Thr	Ala	Trp	Tyr		
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Lys	Phe	Pro	Cys	Tyr	Val	Gln	Asn	Glu	Val	Pro	His	Ala	Glu	Ala	Trp		
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Ile	Asn	Gly	Thr	Asn	Leu	Ala	Gly	Gln	Ser	Phe	Val	Ala	Glu	Gln	Leu		
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Gln	Ile	Glu	Tyr	Ser	Phe	Pro	Phe	Thr	Phe	Pro	Pro	Gly	Leu	Phe	Ala		
			885						890						895		
Arg	Tyr	Ser	Val	Gln	Ile	Asn	Ser	His	Val	Val	His	Arg	Ser	Asp	Gly		
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Lys	Phe	Gln</															

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Ser His Ala Ser Leu Pro Asn Ile Trp Thr Ala Trp Gln Ala Ile Thr		
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Pro Leu Val Glu Glu Leu Asn Val Leu Leu Gln Glu Trp Pro Gly Leu		960
	965	970
His Tyr Thr Val His Ile Leu Cys Ser Lys Cys Leu Lys Arg Gly Ser		975
	980	985
Pro Asn Pro His Ala Phe Pro Gly Glu Leu Leu Ser Gln Pro Arg Pro		990
	995	1000
Glu Gly Val Ala Glu Ile Ile Cys Pro Lys Asn Gly Ser Glu Arg Val		1005
	1010	1015
Asn Val Ala Leu Val Tyr Pro Pro Thr Pro Thr Val Ile Ser Pro Cys		1020
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Ser Lys Lys Asn Val Gly Glu Lys His Arg Asn Gln		1040
	1045	1050

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 <211> 947
 <212> DNA
 <213> Homo sapiens

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 720
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 947

<210> 4308
 <211> 200
 <212> PRT
 <213> Homo sapiens

<400> 4308
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 Ala Pro Gly Ala Arg Cys His Gly Asp Ala Pro Gly Ser Leu Ala Ala
 35 40 45
 Arg Cys Gly Cys Gly Val Gln Gly Val Gln Gly Thr Ala Arg Cys Ala
 50 55 60
 Ser Cys Ser Cys Cys His Ala Ser Leu Cys Pro Ala Gly Gly Cys Gly
 65 70 75 80
 Trp Gly Cys Ser Phe Leu Thr Gly Xaa Cys Gly Gly Ser Gly Ala Xaa
 85 90 95
 Cys Gly Asp Cys Glu Gly Phe Asp Val His Ile Met Asp Asp Met Ile
 100 105 110
 Lys Val Gly Arg Ala Thr Leu Cys Ile Val Pro Pro Thr Cys Ser Cys
 115 120 125
 Ile Ala Gly Leu Ser Gln Gly Pro Ser Leu Gly Ser Thr Gly Ser Ser
 130 135 140
 Val Gly Gly Ser Glu Val Arg Cys Cys His Phe Val Trp Phe Asn Met
 145 150 155 160
 Ser Ile Ala Trp Tyr Gln Pro Cys Ser Trp Leu Arg Ala Val Thr Leu
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<210> 4309
 <211> 1928
 <212> DNA
 <213> Homo sapiens

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 420

caataacata tccaaagcct tttggtattg ttgacgttcc tgetgaattg ttacttcaact
480
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<210> 4310

<211> 599
 <212> PRT
 <213> Homo sapiens

<400> 4310

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			20					25					30		
Phe	Cys	Thr	Asp	Ser	Ser	Ser	Leu	Arg	Leu	Ser	Thr	Leu	Gln	Leu	Val
		35					40					45			
Lys	Asn	His	Met	Ala	Val	His	Tyr	Asn	Lys	Ile	Leu	Ser	Ala	Lys	Ala
	50					55					60				
Ala	Val	Asp	Cys	Ser	Val	Pro	Val	Ser	Val	Ser	Thr	Ser	Ile	Lys	Tyr
65					70					75				80	
Ala	Asp	Gln	Gln	Arg	Arg	Glu	Lys	Leu	Lys	Lys	Glu	Leu	Ala	Gln	Cys
				85					90					95	
Glu	Lys	Glu	Phe	Lys	Leu	Thr	Lys	Thr	Ala	Met	Arg	Ala	Asn	Tyr	Lys
			100					105					110		
Asn	Asn	Ser	Lys	Ser	Leu	Phe	Asn	Thr	Leu	Gln	Lys	Pro	Ser	Gly	Glu
		115					120					125			
Pro	Gln	Ile	Glu	Asp	Asp	Met	Leu	Lys	Glu	Glu	Met	Asn	Gly	Phe	Ser
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Ser	Phe	Ala	Arg	Ser	Leu	Val	Pro	Ser	Ser	Glu	Arg	Leu	His	Leu	Ser
145					150					155				160	
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				165					170					175	
Ser	Ser	Ser	Pro	Ser	Ser	Val	Asp	Tyr	Ala	Ala	Ser	Gly	Pro	Arg	Lys
			180					185					190		
Leu	Ser	Ser	Gly	Ala	Leu	Tyr	Gly	Arg	Arg	Pro	Arg	Ser	Thr	Phe	Pro
	195						200					205			
Asn	Ser	His	Arg	Phe	Gln	Leu	Val	Ile	Ser	Lys	Ala	Pro	Ser	Gly	Asp
	210					215					220				
Leu	Leu	Asp	Lys	His	Ser	Glu	Leu	Phe	Ser	Asn	Lys	Gln	Leu	Pro	Phe
225					230					235				240	
Thr	Pro	Arg	Thr	Leu	Lys	Thr	Glu	Ala	Lys	Ser	Phe	Leu	Ser	Gln	Tyr
				245					250					255	
Arg	Tyr	Tyr	Thr	Pro	Ala	Lys	Arg	Lys	Lys	Asp	Phe	Thr	Asp	Gln	Arg
			260					265					270		
Ile	Glu	Ala	Glu	Thr	Gln	Thr	Glu	Leu	Ser	Phe	Lys	Ser	Glu	Leu	Gly
	275						280					285			
Thr	Ala	Glu	Thr	Lys	Asn	Met	Thr	Asp	Ser	Glu	Met	Asn	Ile	Lys	Gln
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Ala	Ser	Asn	Cys	Val	Thr	Tyr	Asp	Ala	Lys	Glu	Lys	Ile	Ala	Pro	Leu
305					310					315				320	
Pro	Leu	Glu	Gly	His	Asp	Ser	Thr	Trp	Asp	Glu	Ile	Lys	Asp	Asp	Ala
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			340					345					350		
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	355					360						365			
Ser	Phe	Ile	Glu	Asp	Val	Thr	Asp	Glu	Ile	Leu	Lys	Leu	Gly	Leu	Phe
	370					375				380					
Ser	Asn	Arg	Phe	Leu	Glu	Arg	Leu	Phe	Glu	Arg	His	Ile	Lys	Gln	Asn

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 420 425 430
 Val Asp Met Leu Asn Val Phe Asp Phe Glu Lys Ala Gly Asn Ser Glu
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 465 470 475 480
 Glu Asn Glu Ile Phe Pro Ser Pro Thr Glu Phe Phe Met Pro Ile Tyr
 485 490 495
 Lys Ser Lys His Ser Glu Gly Val Ile Ile Gln Gln Val Asn Asp Glu
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 Thr Asn Leu Glu Thr Ser Thr Leu Asp Glu Asn His Pro Ser Ile Ser
 515 520 525
 Asp Ser Leu Thr Asp Arg Glu Thr Ser Val Asn Val Ile Glu Gly Asp
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 Ser Asp Pro Glu Lys Val Glu Ile Ser Asn Gly Leu Cys Gly Leu Asn
 545 550 555 560
 Thr Ser Pro Ser Gln Ser Val Gln Phe Ser Ser Val Lys Gly Asp Asn
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<210> 4311

<211> 432

<212> DNA

<213> Homo sapiens

<400> 4311

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<210> 4312

<211> 144

<212> PRT

<213> Homo sapiens

<400> 4312

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			20					25					30		
Thr	Arg	Ala	Asn	Val	Gly	Lys	Arg	Lys	Asn	Ile	Thr	Thr	Gly	Ala	Ser
		35					40					45			
Ala	Ala	Ser	Gln	Thr	Gln	Met	Pro	Thr	Gly	Gln	Thr	Gly	Asn	Cys	Glu
	50					55					60				
Ser	Pro	Leu	Gly	Ser	Lys	Glu	Asp	Leu	Asn	Ser	Lys	Glu	Asn	Leu	Asp
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			100					105					110		
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<210> 4313

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<212> DNA

<213> Homo sapiens

<400> 4313

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780

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<210> 4314
<211> 110
<212> PRT
<213> Homo sapiens

<400> 4314
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35 40 45
Leu Ser Ser Ala Thr Asp Leu Cys Ala Leu Val Tyr Phe Ser Ala Arg
50 55 60
Gly Thr His Pro Lys Thr Ile Ser Ser Ser Phe Pro Gly Asp Val Val
65 70 75 80
Pro Gln Gly Trp Ala Leu Gln Leu Trp Pro Ser Ser Leu Val Leu Pro
85 90 95
Arg Arg His Gln Ala Ala Gln Asn Glu Val Thr Ala Gly Asn
100 105 110

<210> 4315
<211> 573
<212> DNA
<213> Homo sapiens

<400> 4315
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120
cacctaccat ccaagccatg gtcaccttca ccaagccaca gtcacatcacc atccaagcca
180
ccgtcaccta ccatccaagc catggccacc tacctgcca gccatggcca cctaccggcc
240
aagccatgggt cacctaccca ccaagtcatg gtcgcctacc atccaaggag caggcctgga
300
acagatcctt cccagagcc ctcagtagga gccaacctg ctgacacctt gatctcagac
360
ttcaagcctc cagaactgtg ggacaatcct tcaactgtcat ttaatccacc cagcatgtgg
420
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573

<210> 4316
 <211> 169
 <212> PRT
 <213> Homo sapiens

<400> 4316
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 His Arg Gln Ala Gln Ser Asp Asp His Val Lys Thr Gln Gly Arg Asp
 20 25 30
 Gly His Leu Pro Pro Arg His Gly His Leu Pro Ser Lys Pro Trp Ser
 35 40 45
 Pro Ser Pro Ser His Ser His Leu Pro Ser Lys Pro Pro Ser Pro Thr
 50 55 60
 Ile Gln Ala Met Ala Thr Tyr Leu Pro Ser His Gly His Leu Pro Ala
 65 70 75 80
 Lys Pro Trp Ser Pro Thr His Gln Val Met Val Ala Tyr His Pro Arg
 85 90 95
 Ser Arg Pro Gly Thr Asp Pro Ser Pro Glu Pro Ser Val Gly Ala Asn
 100 105 110
 Pro Ala Asp Thr Leu Ile Ser Asp Phe Lys Pro Pro Glu Leu Trp Asp
 115 120 125
 Asn Pro Ser Leu Ser Phe Asn Pro Pro Ser Met Trp Ser Leu Val Thr
 130 135 140
 Val Ala Leu Ala Ser Glu Pro Thr Arg Ala Leu Leu Gln Ser Pro Gly
 145 150 155 160
 Ser Gly Val Val Leu Val Arg Lys Phe
 165

<210> 4317
 <211> 744
 <212> DNA
 <213> Homo sapiens

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 180
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 240
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 300
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 360
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 420
 aattgcttag gaatccagcg ctttgctgat acccattcac tcaaaacact cttcacaaaa
 480
 tgcaaaaatt ttgcgttaca gacttttgag gatgtatccc agcacgaaga atttcttgag
 540

cttgacaaag atgaacttat tgattatatt tgtagtgatg aacttggttat tggtaaagag
 600
 gagatgggtt ttgaagccgt catgcgttgg gtctatcgtg ccgttgatct gagaagacca
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 744

<210> 4318
 <211> 239
 <212> PRT
 <213> Homo sapiens

<400> 4318
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 Val Ile Ile Trp Val Glu Gly Lys Glu Phe Pro Cys His Arg Ala Val
 35 40 45
 Leu Ser Ala Cys Ser Ser Tyr Phe Arg Ala Met Phe Cys Asn Asp His
 50 55 60
 Arg Glu Ser Arg Glu Met Leu Val Glu Ile Asn Gly Ile Leu Ala Glu
 65 70 75 80
 Ala Met Glu Cys Phe Leu Gln Tyr Val Tyr Thr Gly Lys Val Lys Ile
 85 90 95
 Thr Thr Glu Asn Val Gln Tyr Leu Phe Glu Thr Ser Ser Leu Phe Gln
 100 105 110
 Ile Ser Val Leu Arg Asp Ala Cys Ala Lys Phe Leu Glu Glu Gln Leu
 115 120 125
 Asp Pro Cys Asn Cys Leu Gly Ile Gln Arg Phe Ala Asp Thr His Ser
 130 135 140
 Leu Lys Thr Leu Phe Thr Lys Cys Lys Asn Phe Ala Leu Gln Thr Phe
 145 150 155 160
 Glu Asp Val Ser Gln His Glu Glu Phe Leu Glu Leu Asp Lys Asp Glu
 165 170 175
 Leu Ile Asp Tyr Ile Cys Ser Asp Glu Leu Val Ile Gly Lys Glu Glu
 180 185 190
 Met Val Phe Glu Ala Val Met Arg Trp Val Tyr Arg Ala Val Asp Leu
 195 200 205
 Arg Arg Pro Leu Leu His Glu Leu Leu Thr His Val Arg Leu Pro Leu
 210 215 220
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 225 230 235

<210> 4319
 <211> 388
 <212> DNA
 <213> Homo sapiens

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 180
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 240
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 388

<210> 4320

<211> 129

<212> PRT

<213> Homo sapiens

<400> 4320

Xaa	Met	Glu	Lys	Ser	Ile	Asp	Ala	Val	Ile	Ala	Thr	Ala	Ser	Ala	Pro
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Pro	Ser	Ser	Ser	Pro	Gly	Arg	Ser	His	Ser	Lys	Asp	Arg	Thr	Leu	Gly
			20					25					30		
Lys	Pro	Asp	Ser	Leu	Leu	Val	Pro	Ala	Val	Ala	Ser	Asp	Ser	Cys	Asn
		35					40					45			
Asn	Ser	Ile	Ser	Leu	Leu	Ser	Glu	Lys	Leu	Thr	Ser	Ser	Cys	Ser	Pro
	50					55				60					
His	His	Ile	Lys	Arg	Ser	Val	Val	Glu	Ala	Met	Gln	Arg	Gln	Ala	Arg
65				70					75					80	
Lys	Met	Cys	Asn	Tyr	Asp	Lys	Ile	Leu	Ala	Thr	Lys	Lys	Asn	Leu	Asp
			85					90					95		
His	Val	Asn	Lys	Ile	Leu	Lys	Ala	Lys	Lys	Leu	Gln	Arg	Gln	Ala	Arg
		100					105						110		
Thr	Gly	Asn	Asn	Phe	Val	Lys	Arg	Arg	Pro	Gly	Arg	Pro	Arg	Ser	Glu
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Arg

<210> 4321

<211> 278

<212> DNA

<213> Homo sapiens

<400> 4321

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 120
 cgtcccgggtg gaaggcagcc ctgggcggaa cccaggcggt taacgggtca ctaggcagcc
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 240
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 278

<210> 4322

<211> 85

<212> PRT

<213> Homo sapiens

<400> 4322

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Met Gly Ala Gly Gly His Lys Thr Ser Ala Gln Leu Thr Pro Ala Pro
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           20           25           30
Asn Ala Trp Val Pro Pro Arg Ala Ala Phe His Arg Asp Ala Gly Pro
           35           40           45
Ala Val Ala Gly Pro Cys Arg Cys Gly Gly Leu Leu Thr Lys Glu Pro
           50           55           60
Gly Leu Ala Ala Trp Asn Asn Leu Gln Val Gly Val Leu Arg Gly Leu
65           70           75           80
Trp Gln Val Leu Gly
           85

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<210> 4323

<211> 1542

<212> DNA

<213> Homo sapiens

<400> 4323

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120
gacgagaaga ttgaggtgga tgacccccct gacaaggagg acatgcgatc aagcttcagg
180
tcgaatgtgt tgacgggggtc ggctccccag caggactacg ataagctgaa ggcactcgga
240
ggggaaaact ccagcaaaac tggactctct acgtcaggca atgtggagaa aaacaaagct
300
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360
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420
gatgggaagc tgagctccga gaagaatgac accagcctcc ccagcgttgc gccatcaaag
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720
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780
gtccgcataa aaaccattaa gacatcttct ggggaaatca agagaacagt gaccagggta
840

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 1080
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 1140
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 1200
 cagcagcaaa ctgtcgtggt gccggcatcc agcctggcca atgccaaact cgtgccaaag
 1260
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 1380
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<210> 4324

<211> 514

<212> PRT

<213> Homo sapiens

<400> 4324

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Ser	Glu	Val	Thr	Leu	Lys	Asp	Ser	Thr	Phe	Ser	Gln	Phe	Ser	Pro	Ile
			20					25					30		
Ser	Ser	Ala	Glu	Glu	Phe	Asp	Asp	Asp	Glu	Lys	Ile	Glu	Val	Asp	Asp
		35				40						45			
Pro	Pro	Asp	Lys	Glu	Asp	Met	Arg	Ser	Ser	Phe	Arg	Ser	Asn	Val	Leu
		50				55					60				
Thr	Gly	Ser	Ala	Pro	Gln	Gln	Asp	Tyr	Asp	Lys	Leu	Lys	Ala	Leu	Gly
65					70					75				80	
Gly	Glu	Asn	Ser	Ser	Lys	Thr	Gly	Leu	Ser	Thr	Ser	Gly	Asn	Val	Glu
			85					90					95		
Lys	Asn	Lys	Ala	Val	Lys	Arg	Glu	Thr	Glu	Ala	Ser	Ser	Ile	Asn	Leu
			100					105					110		
Ser	Val	Tyr	Glu	Pro	Phe	Lys	Val	Arg	Lys	Ala	Glu	Asp	Lys	Leu	Lys
		115					120					125			
Glu	Ser	Ser	Asp	Lys	Val	Leu	Glu	Asn	Arg	Val	Leu	Asp	Gly	Lys	Leu
		130				135					140				
Ser	Ser	Glu	Lys	Asn	Asp	Thr	Ser	Leu	Pro	Ser	Val	Ala	Pro	Ser	Lys
145					150					155				160	
Thr	Lys	Ser	Ser	Ser	Lys	Leu	Ser	Ser	Cys	Ile	Ala	Ala	Ile	Ala	Ala
				165					170					175	
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<210> 4325
<211> 1405
<212> DNA
<213> Homo sapiens
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3518

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240
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300
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420
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<210> 4326

<211> 336

<212> PRT

<213> Homo sapiens

<400> 4326

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Ser	Ser	Ser	Met	Val	Trp	Gln	Val	Leu	Glu	Gly	Leu	Ser	Gln	Asp	Ser

3520

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<210> 4328

<211> 107

<212> PRT

<213> Homo sapiens

<400> 4328

Met	Pro	Ser	Arg	Val	Gln	Ala	Pro	Ser	Trp	Gln	Ala	Arg	Ala	Val	Gly
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Val	Thr	Leu	Leu	Ser	Gln	Arg	Trp	Val	Cys	Pro	Ile	Val	Val	Ser	Arg
		20						25					30		
Ala	Thr	Ser	Ser	Pro	Trp	Leu	Cys	Gly	Leu	Ser	Val	Ser	His	Pro	Gln
		35					40					45			
His	Leu	Asp	Gly	Leu	Arg	Val	Arg	Ala	Lys	Val	Arg	Arg	Pro	Gly	His
	50					55					60				
His	Thr	Ile	Pro	Ala	Thr	Thr	Arg	Trp	Leu	Phe	Leu	Glu	Ser	Glu	Gly
65					70				75					80	
Gly	Arg	Arg	Cys	Leu	Gly	Ser	Trp	Gly	Cys	Leu	Gly	Ser	Glu	Pro	Val
			85					90						95	
Arg	Val	Ser	Pro	Ala	Cys	Pro	Ser	Ile	Ser	Trp					
			100					105							

<210> 4329

<211> 3192

<212> DNA

<213> Homo sapiens

<400> 4329

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 120
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 180
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 240
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 300
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 360
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 420

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<210> 4330

<211> 371

<212> PRT

<213> Homo sapiens

<400> 4330

Met	Ser	Gln	Pro	Lys	Gln	Lys	Glu	Leu	Ala	Gly	Ser	Val	Arg	Gln	Lys
1				5					10					15	
Met	Leu	Leu	Asp	Tyr	Ser	Val	Tyr	Met	Gly	Arg	Cys	Val	Pro	Gln	Glu
			20					25					30		
Ser	Arg	Ser	Pro	Gln	Arg	Ser	Pro	Leu	Gln	Ser	Ala	Glu	Ser	Ser	Pro
	35						40				45				
Thr	Ala	Gly	Lys	Lys	Leu	Pro	Glu	Val	Pro	Pro	Ser	Glu	Glu	Glu	Glu

50	55	60
Gln Glu Ala Trp Val Asn Ala Leu Leu Gly Arg Ile Phe Trp Asp Phe		
65	70	75
Leu Gly Glu Lys Tyr Trp Ser Asp Leu Val Ser Lys Lys Ile Gln Met		80
	85	90
Lys Leu Ser Lys Ile Lys Leu Pro Tyr Phe Met Asn Glu Leu Thr Leu		95
	100	105
Thr Glu Leu Asp Met Gly Val Ala Val Pro Lys Ile Leu Gln Ala Phe		110
	115	120
Lys Pro Tyr Val Asp His Gln Gly Leu Trp Ile Asp Leu Glu Met Ser		125
	130	135
Tyr Asn Gly Ser Phe Leu Met Thr Leu Glu Thr Lys Met Asn Leu Pro		140
	145	150
Lys Leu Gly Lys Glu Pro Leu Val Glu Ala Leu Lys Val Gly Glu Ile		155
	160	165
Gly Lys Glu Gly Cys Arg Pro Arg Ala Phe Cys Leu Ala Asp Ser Asp		170
	175	180
Glu Glu Ser Ser Ser Ala Gly Ser Ser Glu Glu Asp Asp Ala Pro Glu		185
	190	195
Pro Ala Gly Glu Thr Asn Ser Ser Ser Gln Gly Glu Gly Tyr Val Gly		200
	205	210
Gly His Arg Thr Ser Lys Ile Met Arg Phe Val Asp Lys Ile Thr Lys		215
	220	225
Ser Lys Tyr Phe Gln Lys Ala Thr Glu Thr Glu Phe Ile Lys Arg Xaa		230
	235	240
Ile Glu Glu Val Ser Asn Thr Pro Leu Leu Thr Val Glu Val Gln		245
	250	255
Glu Cys Arg Gly Thr Leu Ala Val Asn Ile Pro Pro Pro Pro Thr Asp		260
	265	270
Arg Val Trp Tyr Gly Phe Arg Lys Pro Pro His Val Glu Leu Lys Ala		275
	280	285
Arg Pro Lys Leu Gly Glu Arg Glu Val Thr Leu Val His Val Thr Asp		290
	295	300
Trp Ile Glu Lys Lys Leu Glu Gln Glu Phe Gln Lys Val Phe Val Met		305
	310	315
Pro Asn Met Asp Asp Val Tyr Ile Thr Ile Met His Ser Ala Met Asp		320
	325	330
Pro Arg Ser Thr Ser Cys Leu Leu Lys Asp Pro Pro Val Glu Ala Ala		335
	340	345
Asp Arg Pro		350
	355	360
		365
		370

<210> 4331

<211> 1355

<212> DNA

<213> Homo sapiens

<400> 4331

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60

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120

gatttaaagt agcctttgca cctcagtttc cttcagaatg ctgcaaaact atatgctaca

180

gtatattgta ttccatttgc agaagaggac ttatcagcag atgccctctt gaatattctt
 240
 tcagaagtaa agattcagga attcaagcct tccaataagg ttgttcaaac agatgaaact
 300
 gcaaggaaac cagaccatgt tcctattagc agtgaagatg agaggaatgc aattttccaa
 360
 ctagaaaagg ctattttatc taatgaagcc accaaaagtg accttcagat ggcagtgcct
 420
 tcatttgaaa aagatgatga tcataatgga cacatagatt tcatcacagc tgcatacaat
 480
 ctctgtgcca aaatgtacag cattgaacca gctgaccgtt tcaaaacaaa gcgcatagct
 540
 ggtaaaatta tacctgctat agcaacaacc actgctacag tttctggctt ggttgccttg
 600
 gagatgatca aagtaactgg tggctatcca tttgaagctt acaaaaattg ttttcttaac
 660
 ttagccattc caattgtagt atttacagag acaactgaag taaggaaaac taaaatcaga
 720
 aatggaatat catttacaat ttgggatcga tggaccgtac atggaaaaga agatttcacc
 780
 ctcttggttgc tcataaatgc agtcaaagag aagtatggaa ttgagccaac aatggtggta
 840
 cagggagtca aaatgcttta tgttcctgta atgcctggtc atgcaaaaag attgaagtta
 900
 acaatgcata aacttgtaaa acctactact gaaaagaaat atgtggatct tactgtgtca
 960
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 1020
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 1080
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 1140
 ttcattaagc ctttaatttta agggaaacat cagtaagaaa ctgcactgaa gaattataaa
 1200
 acattttggg gcatagcata cacttgtcta acggttcaca cgtggctatg atcacaagca
 1260
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 1320
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 1355

<210> 4332

<211> 345

<212> PRT

<213> Homo sapiens

<400> 4332

Glu	Lys	Tyr	Phe	Asn	His	Lys	Ala	Leu	Gln	Leu	Leu	His	Cys	Phe	Pro
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Leu	Asp	Ile	Arg	Leu	Lys	Asp	Gly	Ser	Leu	Phe	Trp	Gln	Ser	Pro	Lys
			20					25					30		
Arg	Pro	Pro	Ser	Pro	Ile	Lys	Phe	Asp	Leu	Asn	Glu	Pro	Leu	His	Leu
			35				40					45			
Ser	Phe	Leu	Gln	Asn	Ala	Ala	Lys	Leu	Tyr	Ala	Thr	Val	Tyr	Cys	Ile

50 55 60
 Pro Phe Ala Glu Glu Asp Leu Ser Ala Asp Ala Leu Leu Asn Ile Leu
 65 70 75 80
 Ser Glu Val Lys Ile Gln Glu Phe Lys Pro Ser Asn Lys Val Val Gln
 85 90 95
 Thr Asp Glu Thr Ala Arg Lys Pro Asp His Val Pro Ile Ser Ser Glu
 100 105 110
 Asp Glu Arg Asn Ala Ile Phe Gln Leu Glu Lys Ala Ile Leu Ser Asn
 115 120 125
 Glu Ala Thr Lys Ser Asp Leu Gln Met Ala Val Leu Ser Phe Glu Lys
 130 135 140
 Asp Asp Asp His Asn Gly His Ile Asp Phe Ile Thr Ala Ala Ser Asn
 145 150 155 160
 Leu Arg Ala Lys Met Tyr Ser Ile Glu Pro Ala Asp Arg Phe Lys Thr
 165 170 175
 Lys Arg Ile Ala Gly Lys Ile Ile Pro Ala Ile Ala Thr Thr Thr Ala
 180 185 190
 Thr Val Ser Gly Leu Val Ala Leu Glu Met Ile Lys Val Thr Gly Gly
 195 200 205
 Tyr Pro Phe Glu Ala Tyr Lys Asn Cys Phe Leu Asn Leu Ala Ile Pro
 210 215 220
 Ile Val Val Phe Thr Glu Thr Thr Glu Val Arg Lys Thr Lys Ile Arg
 225 230 235 240
 Asn Gly Ile Ser Phe Thr Ile Trp Asp Arg Trp Thr Val His Gly Lys
 245 250 255
 Glu Asp Phe Thr Leu Leu Asp Phe Ile Asn Ala Val Lys Glu Lys Tyr
 260 265 270
 Gly Ile Glu Pro Thr Met Val Val Gln Gly Val Lys Met Leu Tyr Val
 275 280 285
 Pro Val Met Pro Gly His Ala Lys Arg Leu Lys Leu Thr Met His Lys
 290 295 300
 Leu Val Lys Pro Thr Thr Glu Lys Lys Tyr Val Asp Leu Thr Val Ser
 305 310 315 320
 Phe Ala Pro Asp Ile Asp Gly Asp Glu Asp Leu Pro Gly Pro Pro Val
 325 330 335
 Arg Tyr Tyr Phe Ser His Asp Thr Asp
 340 345

<210> 4333

<211> 1278

<212> DNA

<213> Homo sapiens

<400> 4333

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 120
 cggaagcccc ccgcgctctc ccgagtgtcc aggatgtttt ccgtgggtca cccagccgcc
 180
 aaggtgccgc agcccgagcg gctggacctg gtgtacacgg cgctgaagcg gggcctgacg
 240
 gcctacttgg aagtgcacca gcaggagcaa gagaaactcc aggggcagat aaggaggtcc
 300

aagaggaatt cccgcttggg cttcctgtat gatctggaca agcaagtcaa gtccattgaa
 360
 cgcttcctgc gacgactgga gttccatgcc agcaagatcg atgagctgta tgaggcatac
 420
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 660
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 720
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 1200
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 1260
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 1278

<210> 4334

<211> 189

<212> PRT

<213> Homo sapiens

<400> 4334

Arg	Pro	Gln	Arg	Arg	Leu	Leu	Ser	Ala	Arg	Val	Asn	Arg	Ser	Gln	Ser
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Phe	Ala	Gly	Val	Leu	Gly	Ser	His	Glu	Arg	Gly	Pro	Arg	Ser	Phe	Pro
			20					25					30		
Val	Phe	Ser	Pro	Pro	Gly	Pro	Pro	Arg	Lys	Pro	Pro	Ala	Leu	Ser	Arg
		35				40						45			
Val	Ser	Arg	Met	Phe	Ser	Val	Ala	His	Pro	Ala	Ala	Lys	Val	Pro	Gln
	50					55					60				
Pro	Glu	Arg	Leu	Asp	Leu	Val	Tyr	Thr	Ala	Leu	Lys	Arg	Gly	Leu	Thr
65				70					75					80	
Ala	Tyr	Leu	Glu	Val	His	Gln	Gln	Glu	Gln	Glu	Lys	Leu	Gln	Gly	Gln
			85					90					95		
Ile	Arg	Glu	Ser	Lys	Arg	Asn	Ser	Arg	Leu	Gly	Phe	Leu	Tyr	Asp	Leu

			100						105						110		
Asp	Lys	Gln	Val	Lys	Ser	Ile	Glu	Arg	Phe	Leu	Arg	Arg	Leu	Glu	Phe		
			115						120						125		
His	Ala	Ser	Lys	Ile	Asp	Glu	Leu	Tyr	Glu	Ala	Tyr	Cys	Val	Gln	Arg		
			130						135						140		
Arg	Leu	Arg	Asp	Gly	Ala	Tyr	Asn	Met	Val	Arg	Ala	Tyr	Thr	Thr	Gly		
			145						150						155		
Ser	Pro	Gly	Ser	Arg	Glu	Ala	Arg	Asp	Ser	Leu	Ala	Glu	Ala	Thr	Arg		
			165						170						175		
Gly	His	Arg	Glu	Tyr	Thr	Glu	Val	Gly	Asp	Gly	Gly	Pro					
			180						185								

<210> 4335

<211> 1211

<212> DNA

<213> Homo sapiens

<400> 4335

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gatggggagg	agtggctccc	cccacttaaa	acatttgtgc	cctctgtatc	cccattccag
120					
ctggccttgg	gtgcggcact	cgtgaatgta	cagatcccc	tgctcctggg	ccagctggta
180					
gaggctcgtgg	ccaagtacac	aagggaccac	gtagggagtt	tcatgactga	gtctcagaat
240					
ctcagcacc	acctgcttat	cctctatgg	gtccagggac	tgctgacctt	cgggtacctg
300					
gtgctgctgt	cccacgttgg	cgagcgcatt	gctgtggaca	tgcggagggc	cctcttcagc
360					
tccctgctcc	gacaagacat	caccttcttt	gacgccaata	agacagggca	gctggtgagc
420					
cgcttgacaa	ctgacgtgca	ggagtttaag	tcattccttca	agcttgtcat	ctcccagggg
480					
ctgcgaagct	gcacccaggt	ggcaggctgc	ctgggtgtccc	tgtccatgct	gtcgacacgc
540					
ctcacgctgc	tgctgatgg	ggccacacca	gcctgatgg	gagtgggcac	cctgatgggc
600					
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660					
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720					
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780					
ggcatcgct	tgttccaagg	gctttccaac	atcgcttca	actgcatgg	cttgggtacc
840					
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900					
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960					
cttccgctgc	aggctgtgac	actccatgca	tggaaaggacc	atccttgaca	ggctgtgtga
1020					
gctgcccttc	cccatgcctg	ccacttccag	ggatgacaag	ctgacctctg	tccccacaca
1080					

ccccaccctt atagcttatt gctttgcggt ggtccaaaac caccgctca gctgagcctc
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 1200
 tgtgctcgcg a
 1211

<210> 4336

<211> 325

<212> PRT

<213> Homo sapiens

<400> 4336

Trp	Glu	Arg	Lys	Gly	Gln	Asp	Leu	Ala	Gly	Asp	Gly	Glu	Glu	Trp	Leu
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Pro	Pro	Leu	Lys	Thr	Phe	Val	Pro	Ser	Val	Ser	Pro	Phe	Gln	Leu	Ala
			20					25					30		
Leu	Gly	Ala	Ala	Leu	Val	Asn	Val	Gln	Ile	Pro	Leu	Leu	Leu	Gly	Gln
		35						40				45			
Leu	Val	Glu	Val	Val	Ala	Lys	Tyr	Thr	Arg	Asp	His	Val	Gly	Ser	Phe
	50					55				60					
Met	Thr	Glu	Ser	Gln	Asn	Leu	Ser	Thr	His	Leu	Leu	Ile	Leu	Tyr	Gly
65					70					75				80	
Val	Gln	Gly	Leu	Leu	Thr	Phe	Gly	Tyr	Leu	Val	Leu	Leu	Ser	His	Val
			85					90					95		
Gly	Glu	Arg	Met	Ala	Val	Asp	Met	Arg	Arg	Ala	Leu	Phe	Ser	Ser	Leu
			100					105					110		
Leu	Arg	Gln	Asp	Ile	Thr	Phe	Phe	Asp	Ala	Asn	Lys	Thr	Gly	Gln	Leu
		115						120				125			
Val	Ser	Arg	Leu	Thr	Thr	Asp	Val	Gln	Glu	Phe	Lys	Ser	Ser	Phe	Lys
	130					135				140					
Leu	Val	Ile	Ser	Gln	Gly	Leu	Arg	Ser	Cys	Thr	Gln	Val	Ala	Gly	Cys
145					150					155				160	
Leu	Val	Ser	Leu	Ser	Met	Leu	Ser	Thr	Arg	Leu	Thr	Leu	Leu	Leu	Met
			165						170					175	
Val	Ala	Thr	Pro	Ala	Leu	Met	Gly	Val	Gly	Thr	Leu	Met	Gly	Ser	Gly
		180						185				190			
Leu	Arg	Lys	Leu	Ser	Arg	Gln	Cys	Gln	Glu	Gln	Ile	Ala	Arg	Ala	Met
		195				200						205			
Gly	Val	Ala	Asp	Glu	Ala	Leu	Gly	Asn	Val	Arg	Thr	Val	Arg	Ala	Phe
	210					215					220				
Ala	Met	Glu	Gln	Arg	Glu	Glu	Arg	Tyr	Gly	Ala	Glu	Leu	Glu	Ala	
225					230					235				240	
Cys	Arg	Cys	Arg	Ala	Glu	Glu	Leu	Gly	Arg	Gly	Ile	Ala	Leu	Phe	Gln
			245						250					255	
Gly	Leu	Ser	Asn	Ile	Ala	Phe	Asn	Cys	Met	Val	Leu	Gly	Thr	Leu	Phe
		260						265					270		
Ile	Gly	Gly	Ser	Leu	Val	Ala	Gly	Gln	Gln	Leu	Thr	Gly	Gly	Asp	Leu
	275						280					285			
Met	Ser	Phe	Leu	Val	Ala	Ser	Gln	Thr	Val	Gln	Ser	Phe	Leu	Arg	Val
	290					295					300				
Ala	Pro	Cys	Pro	Asn	Ser	Leu	Pro	Leu	Gln	Ala	Val	Thr	Leu	His	Ala
305					310					315					320
Trp	Lys	Asp	His	Pro											

325

<210> 4337

<211> 461

<212> DNA

<213> Homo sapiens

<400> 4337

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120
cctgggaggc tgagggtgag gaaggccagc tgtgctggct gcagagggct ttgctgtttc
180
tccacagagc agcaggtcgc cccttccctt ctccctccct ccacctcacc tccatgggct
240
ccactggatg ggaaccatgt gcttggtctc cccacccta gactgggatc tctggggca
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360
gaacagtgat accaggcata gccctgccct ttagcatcct gagggccacg tggagttttc
420
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461

<210> 4338

<211> 118

<212> PRT

<213> Homo sapiens

<400> 4338

Met	Asn	Leu	Thr	Phe	Ser	Gln	Pro	Gly	Ser	Val	Cys	Ala	Thr	Trp	Glu
1				5				10						15	
Ala	Ser	Ser	Ala	Pro	Gly	Asp	Pro	Ser	Leu	Gly	Val	Gly	Arg	Thr	Ser
			20					25					30		
Thr	Trp	Phe	Pro	Ser	Ser	Gly	Ala	His	Gly	Gly	Glu	Val	Glu	Gly	Gly
	35					40					45				
Arg	Arg	Glu	Gly	Ala	Thr	Cys	Cys	Ser	Val	Glu	Lys	Gln	Gln	Ser	Pro
	50					55				60					
Leu	Gln	Pro	Ala	Gln	Leu	Ala	Phe	Leu	Thr	Leu	Ser	Leu	Pro	Gly	Leu
65				70				75						80	
Cys	Gly	Arg	Glu	Gly	Gln	Ala	Arg	Trp	Pro	Ala	Arg	Asp	Val	Val	Phe
			85					90					95		
Ser	Phe	Val	Leu	Cys	Thr	Met	Pro	Gln	Lys	Asn	Ile	Leu	Leu	Ile	Cys
			100					105					110		
Asn	Gln	Asp	Asn	Ile	Ile										
			115												

<210> 4339

<211> 5269

<212> DNA

<213> Homo sapiens

<400> 4339

3530

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120
cccagccccg gagatggaaa tccaagagaa aacagcccat tcctcaacaa tgtcgaggtg
180
gaacaagaga gcttctttga agggaagaac atggcacttt tcgaggagga gatggacagt
240
aacccccatgg tgtcctcgct gctcaacaag ctggccaact acaccaacct gagccagggc
300
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360
ggcaccttca tcggcgtcta cctgccgtgc ctgcagaaca tcctgggcgt catcctcttc
420
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480
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540
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660
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780
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1020
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1080
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1260
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1380
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1620

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1920
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1980
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2160
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2340
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<210> 4340

<211> 1088

<212> PRT

<213> Homo sapiens

<400> 4340

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			20					25					30		
Gly	Pro	Glu	Pro	Glu	Arg	Pro	Ser	Pro	Gly	Asp	Gly	Asn	Pro	Arg	Glu
		35					40					45			
Asn	Ser	Pro	Phe	Leu	Asn	Asn	Val	Glu	Val	Glu	Gln	Glu	Ser	Phe	Phe
	50					55					60				
Glu	Gly	Lys	Asn	Met	Ala	Leu	Phe	Glu	Glu	Glu	Met	Asp	Ser	Asn	Pro
65					70					75					80
Met	Val	Ser	Ser	Leu	Leu	Asn	Lys	Leu	Ala	Asn	Tyr	Thr	Asn	Leu	Ser
				85					90					95	
Gln	Gly	Val	Val	Glu	His	Glu	Glu	Asp	Glu	Glu	Ser	Arg	Arg	Arg	Glu
			100					105					110		
Ala	Lys	Ala	Pro	Arg	Met	Gly	Thr	Phe	Ile	Gly	Val	Tyr	Leu	Pro	Cys
		115					120					125			
Leu	Gln	Asn	Ile	Leu	Gly	Val	Ile	Leu	Phe	Leu	Arg	Leu	Thr	Trp	Ile
	130					135					140				
Val	Gly	Val	Ala	Gly	Val	Leu	Glu	Ser	Phe	Leu	Ile	Val	Ala	Met	Cys
145					150					155				160	
Cys	Thr	Cys	Thr	Met	Leu	Thr	Ala	Ile	Ser	Met	Ser	Ala	Ile	Ala	Thr
				165					170					175	
Asn	Gly	Val	Val	Pro	Ala	Gly	Gly	Ser	Tyr	Tyr	Met	Ile	Ser	Arg	Ser
		180						185					190		
Leu	Gly	Pro	Glu	Phe	Gly	Gly	Ala	Val	Gly	Leu	Cys	Phe	Tyr	Leu	Gly
		195					200					205			
Thr	Thr	Phe	Ala	Gly	Ala	Met	Tyr	Ile	Leu	Gly	Thr	Ile	Glu	Ile	Phe
		210				215						220			
Leu	Thr	Tyr	Ile	Ser	Pro	Gly	Ala	Ala	Ile	Phe	Gln	Ala	Glu	Ala	Ala
225					230					235				240	
Gly	Gly	Glu	Ala	Ala	Ala	Met	Leu	His	Asn	Met	Arg	Val	Tyr	Gly	Thr
			245						250					255	
Cys	Thr	Leu	Val	Leu	Met	Ala	Leu	Val	Val	Phe	Val	Gly	Val	Lys	Tyr

Val	Asn	Lys	Leu	Ala	Leu	Val	Phe	Leu	Ala	Cys	Val	Val	Leu	Ser	Ile
275							280					285			
Leu	Ala	Ile	Tyr	Ala	Gly	Val	Ile	Lys	Ser	Ala	Phe	Asp	Pro	Pro	Asp
290							295				300				
Ile	Pro	Val	Cys	Leu	Leu	Gly	Asn	Arg	Thr	Leu	Ser	Arg	Arg	Ser	Phe
305					310					315					320
Asp	Ala	Cys	Val	Lys	Ala	Tyr	Gly	Ile	His	Asn	Asn	Ser	Ala	Thr	Ser
				325					330					335	
Ala	Leu	Trp	Gly	Leu	Phe	Cys	Asn	Gly	Ser	Gln	Pro	Ser	Ala	Ala	Cys
			340					345					350		
Asp	Glu	Tyr	Phe	Ile	Gln	Asn	Asn	Val	Thr	Glu	Ile	Gln	Gly	Ile	Pro
		355					360					365			
Gly	Ala	Ala	Ser	Gly	Val	Phe	Leu	Glu	Asn	Leu	Trp	Ser	Thr	Tyr	Ala
370						375					380				
His	Ala	Gly	Ala	Phe	Val	Glu	Lys	Lys	Gly	Val	Pro	Ser	Val	Pro	Val
385					390					395					400
Ala	Glu	Glu	Ser	Arg	Ala	Ser	Ala	Leu	Pro	Tyr	Val	Leu	Thr	Asp	Ile
				405					410					415	
Ala	Ala	Ser	Phe	Thr	Leu	Leu	Val	Gly	Ile	Tyr	Phe	Pro	Ser	Val	Thr
			420					425					430		
Gly	Ile	Met	Ala	Gly	Ser	Asn	Arg	Ser	Gly	Asp	Leu	Lys	Asp	Ala	Gln
		435					440					445			
Lys	Ser	Ile	Pro	Thr	Gly	Thr	Ile	Leu	Ala	Ile	Val	Thr	Thr	Ser	Phe
450						455					460				
Ile	Tyr	Leu	Ser	Cys	Ile	Val	Leu	Phe	Gly	Ala	Cys	Ile	Glu	Gly	Val
465					470					475					480
Val	Leu	Arg	Asp	Lys	Phe	Gly	Glu	Ala	Leu	Gln	Gly	Asn	Leu	Val	Ile
				485					490					495	
Gly	Met	Leu	Ala	Trp	Pro	Ser	Pro	Trp	Val	Ile	Val	Ile	Gly	Ser	Phe
		500					505						510		
Phe	Ser	Thr	Cys	Gly	Ala	Gly	Leu	Gln	Thr	Leu	Thr	Gly	Ala	Pro	Arg
		515					520					525			
Leu	Leu	Gln	Ala	Ile	Ala	Arg	Asp	Gly	Ile	Val	Pro	Phe	Leu	Gln	Val
530						535					540				
Phe	Gly	His	Gly	Lys	Ala	Asn	Gly	Glu	Pro	Thr	Trp	Ala	Leu	Leu	Leu
545					550					555					560
Thr	Val	Leu	Ile	Cys	Glu	Thr	Gly	Ile	Leu	Ile	Ala	Ser	Leu	Asp	Ser
				565					570					575	
Val	Ala	Pro	Ile	Leu	Ser	Met	Phe	Phe	Leu	Met	Cys	Tyr	Leu	Phe	Val
			580					585					590		
Asn	Leu	Ala	Cys	Ala	Val	Gln	Thr	Leu	Leu	Arg	Thr	Pro	Asn	Trp	Arg
		595					600					605			
Pro	Arg	Phe	Lys	Phe	Tyr	His	Trp	Thr	Leu	Ser	Phe	Leu	Gly	Met	Ser
610						615					620				
Leu	Cys	Leu	Ala	Leu	Met	Phe	Ile	Cys	Ser	Trp	Tyr	Tyr	Ala	Leu	Ser
625					630					635					640
Ala	Met	Leu	Ile	Ala	Gly	Cys	Ile	Tyr	Lys	Tyr	Ile	Glu	Tyr	Arg	Gly
				645					650					655	
Ala	Glu	Lys	Glu	Trp	Gly	Asp	Gly	Ile	Arg	Gly	Leu	Ser	Leu	Asn	Ala
			660				665						670		
Ala	Arg	Tyr	Ala	Leu	Leu	Arg	Val	Glu	His	Gly	Pro	Pro	His	Thr	Lys
675						680						685			
Asn	Trp	Arg	Pro	Gln	Val	Leu	Val	Met	Leu	Asn	Leu	Asp	Ala	Glu	Gln

690	695	700
Ala Val Lys His Pro Arg Leu Leu Ser Phe Thr Ser Gln Leu Lys Ala		
705	710	715
Gly Lys Gly Leu Thr Ile Val Gly Ser Val Leu Glu Gly Thr Tyr Leu		720
	725	730
Asp Lys His Met Glu Ala Gln Arg Ala Glu Glu Asn Ile Arg Ser Leu		735
	740	745
Met Ser Thr Glu Lys Thr Lys Gly Phe Cys Gln Leu Val Val Ser Ser		750
	755	760
Ser Leu Arg Asp Gly Met Ser His Leu Ile Gln Ser Ala Gly Leu Gly		765
	770	775
Gly Leu Lys His Asn Thr Val Leu Met Ala Trp Pro Ala Ser Trp Lys		780
	785	790
Gln Glu Asp Asn Pro Phe Ser Trp Lys Asn Phe Val Asp Thr Val Arg		795
	800	805
Asp Thr Thr Ala Ala His Gln Ala Leu Leu Val Ala Lys Asn Val Asp		810
	815	820
Ser Phe Pro Gln Asn Gln Glu Arg Phe Gly Gly Gly His Ile Asp Val		825
	830	835
Trp Trp Ile Val His Asp Gly Gly Met Leu Met Leu Leu Pro Phe Leu		840
	845	850
Leu Arg Gln His Lys Val Trp Arg Lys Cys Arg Met Arg Ile Phe Thr		855
	860	865
Val Ala Gln Val Asp Asp Asn Ser Ile Gln Met Lys Lys Asp Leu Gln		870
	875	880
Met Phe Leu Tyr His Leu Arg Ile Ser Ala Glu Val Glu Val Val Glu		885
	890	895
Met Val Glu Asn Asp Ile Ser Ala Phe Thr Tyr Glu Arg Thr Leu Met		900
	905	910
Met Glu Gln Arg Ser Gln Met Leu Lys Gln Met Gln Leu Ser Lys Asn		915
	920	925
Glu Gln Glu Arg Glu Ala Gln Leu Ile His Asp Arg Asn Thr Ala Ser		930
	935	940
His Thr Ala Ala Ala Ala Arg Thr Gln Ala Pro Pro Thr Pro Asp Lys		945
	950	955
Val Gln Met Thr Trp Thr Arg Glu Lys Leu Ile Ala Glu Lys Tyr Arg		960
	965	970
Ser Arg Asp Thr Ser Leu Ser Gly Phe Lys Asp Leu Phe Ser Met Lys		975
	980	985
Pro Glu Trp Gly Asn Leu Asp Gln Ser Asn Val Arg Arg Met His Thr		990
	995	1000
Ala Val Lys Leu Asn Gly Val Val Leu Asn Lys Ser Gln Asp Ala Gln		1005
	1010	1015
Leu Val Leu Leu Asn Met Pro Gly Pro Pro Lys Asn Arg Gln Gly Asp		1020
	1025	1030
Glu Asn Tyr Met Glu Phe Leu Glu Val Leu Thr Glu Gly Leu Asn Arg		1035
	1040	1045
Val Leu Leu Val Arg Gly Gly Gly Arg Glu Val Ile Thr Ile Tyr Ser		1050
	1055	1060
	1065	1070
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<210> 4341

<211> 693

<212> DNA

<213> Homo sapiens

<400> 4341

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 180
 aacatgtata gtgccctctt ttgagtgatg ccgacagaca ccaagccctc cttttcacca
 240
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 360
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<210> 4342

<211> 103

<212> PRT

<213> Homo sapiens

<400> 4342

Met	Val	Arg	Leu	Leu	Lys	Arg	Lys	Val	Gln	His	Lys	Asp	Pro	Pro	Glu
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Arg	Gly	Gln	Ser	Ser	Arg	Gly	Trp	Asn	Ala	Ser	Leu	Gly	Leu	Gly	Glu
			20					25					30		
Lys	Glu	Gly	Leu	Val	Ser	Val	Gly	Ile	Thr	Gln	Lys	Arg	Ala	Leu	Tyr
		35					40					45			
Met	Phe	Ser	Tyr	Lys	Tyr	Ser	Val	Met	Glu	Lys	His	Ser	Leu	Asp	Ala
	50					55					60				
Tyr	Gly	Ser	Leu	Arg	Ser	Phe	Phe	Phe	His	Pro	Leu	Phe	Leu	Glu	Lys
65					70					75				80	
Lys	Phe	Phe	Lys	Ala	Tyr	Asn	Leu	Lys	Ser	Thr	Ser	Thr	Tyr	Ser	Arg
			85					90						95	
Asn	Ile	Val	Ala	Phe	Ser	Ile									
			100												

<210> 4343

<211> 499

<212> DNA

<213> Homo sapiens

<400> 4343

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 240
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 360
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 480
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 499

<210> 4344

<211> 118

<212> PRT

<213> Homo sapiens

<400> 4344

Met	Ala	Pro	Ser	Arg	Pro	Arg	Leu	Pro	Pro	Ser	Pro	Pro	Gln	Arg	Leu
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Arg	Val	Val	Arg	Gly	Arg	Gly	Pro	Phe	Ala	Phe	Arg	Thr	Gly	Arg	Pro
			20					25					30		
Thr	Leu	Gly	Ala	Trp	Thr	Glu	Ser	Ser	Gly	Gly	Arg	Ala	Ala	Gly	Pro
		35					40					45			
Gly	Gly	Glu	Arg	Arg	Thr	Asp	Phe	Arg	Gly	Gly	Pro	Gly	His	Ala	Ala
	50					55					60				
Glu	Thr	Thr	Arg	Leu	Pro	Gly	Gly	Gly	Gln	Asp	Arg	Pro	Cys	Pro	Asp
65				70					75					80	
Lys	Met	Glu	Phe	Pro	Val	Trp	Leu	Gln	Leu	Ala	Ala	Arg	Ser	Gln	Ser
			85					90						95	
Ser	Ser	Val	Ile	Arg	Leu	Ser	Asp	Cys	Ser	Pro	Phe	Ile	Ser	Phe	Ala
		100					105					110			
Val	Val	Gln	Ile	Leu	Ile										
		115													

<210> 4345

<211> 349

<212> DNA

<213> Homo sapiens

<400> 4345

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 120
 cgtctgcatg agcagaagct ggtgcagcat gtggtgtctc agaactgtga cgggctccac
 180

ctgaggagtg ggctgncgcg cacggccatc tccgagctcc acgggaacat gtacattgaa
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 349

<210> 4346
 <211> 116
 <212> PRT
 <213> Homo sapiens

<400> 4346
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 Gln Lys Gly Arg Ser Val Ser Ala Ala Asp Xaa Glu Arg Ala Glu Pro
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 Thr Leu Thr His Met Ser Ile Thr Arg Leu His Glu Gln Lys Leu Val
 35 40 45
 Gln His Val Val Ser Gln Asn Cys Asp Gly Leu His Leu Arg Ser Gly
 50 55 60
 Leu Xaa Arg Thr Ala Ile Ser Glu Leu His Gly Asn Met Tyr Ile Glu
 65 70 75 80
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 100 105 110
 His His Cys Ala
 115

<210> 4347
 <211> 353
 <212> DNA
 <213> Homo sapiens

<400> 4347
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 120
 ccccggggct cgcgcgcagc gggctccagct gcacaaagcc gtccgctccg tcccgccgag
 180
 gccaggcagt gcagaggcag gagccgccgt cgggtagcga gatcttcact gccgagccca
 240
 agcgcgcgcc cagggcgtgg agggcggccg ggcccaggcg gcagcgtgg gtgccccggt
 300
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 353

<210> 4348
 <211> 72
 <212> PRT
 <213> Homo sapiens

<400> 4348

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 Ala Ala Gly Pro Ala Ala Gln Ser Arg Pro Leu Arg Pro Ala Glu Ala
 20 25 30
 Arg Gln Cys Arg Gly Arg Ser Arg Arg Arg Val Ala Arg Ser Ser Leu
 35 40 45
 Pro Ser Pro Ser Ala Arg Pro Gly Arg Gly Gly Arg Pro Gly Pro Gly
 50 55 60
 Gly Ser Ala Gly Cys Pro Gly Leu
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<210> 4349

<211> 2040

<212> DNA

<213> Homo sapiens

<400> 4349

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 120
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 780
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 840
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 900
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 960
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Met Lys Val Lys Gln Ile Leu Gly Arg Ser Ser Ser Asp Pro Gln Ala			
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Gln Lys Tyr Ile Ala Glu Ser Lys Cys Leu Val Ile Glu Lys Asn Gly			
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Lys Leu Arg Tyr Glu Ile Asp Thr Gly Glu Glu Thr Lys Phe Val Asn			
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Phe Asp Phe Gly Glu Lys Gln Lys Asn Ala Leu Gly Glu Ala Ala Arg			
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Ala Ala Gly Phe Asn Val Leu Arg Leu Ile His Glu Pro Ser Ala Ala			
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Leu Leu Ala Tyr Gly Ile Gly Gln Asp Ser Pro Thr Gly Lys Ser Asn			
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Ile Leu Val Phe Lys Leu Gly Gly Thr Ser Leu Ser Leu Ser Val Met			
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Glu Val Asn Ser Gly Ile Tyr Arg Val Leu Ser Thr Asn Thr Asp Asp			
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225	230	235	240
Ser Glu Phe Gln Arg Ser Phe Lys His Asp Val Arg Gly Asn Ala Arg			
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Ala Met Met Lys Leu Thr Asn Ser Ala Glu Val Ala Lys His Ser Leu			
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Ser Thr Leu Gly Ser Ala Asn Cys Phe Leu Asp Ser Leu Tyr Glu Gly			
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Gln Asp Phe Asp Cys Asn Val Ser Arg Ala Arg Phe Glu Leu Leu Cys			
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Leu Val Glu Asp Ser Leu Met Ile Glu Cys Ser Ala Arg Asp Ile Leu			
385	390	395	400
Val Lys Gly Val Asp Glu Ser Gly Ala Ser Arg Phe Thr Val Leu Phe			
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Pro Ser Gly Thr Pro Leu Pro Ala Arg Arg Gln His Thr Leu Gln Ala			
420	425	430	
Pro Gly Ser Ile Ser Ser Val Cys Leu Glu Leu Tyr Glu Ser Asp Gly			

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Thr Met Lys Arg Asp Gly Ser Leu His Val Thr Cys Thr Asp Gln Glu
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<210> 4357
 <211> 421
 <212> DNA
 <213> Homo sapiens

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<210> 4358
 <211> 115
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Gly Leu Pro Pro Arg Phe Ser Ser Pro Thr Pro Leu Trp Arg Lys Val
 50 55 60
 Leu Ser Thr Ala Val Val Gly Ala Pro Leu Leu Leu Gly Ala Arg Tyr
 65 70 75 80
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115

<210> 4359

<211> 3661

<212> DNA

<213> Homo sapiens

<400> 4359

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<211> 670

<212> PRT

<213> Homo sapiens

<400> 4360

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Thr	Phe	Gly	Pro	Ala	Phe	Ser	Ala	Val	Thr	Thr	Ile	Thr	Lys	Ala	Asp
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Ser	Thr	Pro	Arg	Arg	Ser	Asp	Ser	Ala	Ile	Ser	Val	Arg	Ser	Leu	His
			85						90					95	
Ser	Glu	Ser	Ser	Met	Ser	Leu	Arg	Ser	Thr	Phe	Ser	Leu	Pro	Glu	Glu
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Glu	Glu	Glu	Pro	Glu	Pro	Leu	Val	Phe	Ala	Glu	Gln	Pro	Ser	Val	Lys
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Leu	Cys	Cys	Gln	Leu	Cys	Cys	Ser	Val	Phe	Lys	Asp	Pro	Val	Ile	Thr
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Thr	Cys	Gly	His	Thr	Phe	Cys	Arg	Arg	Cys	Ala	Leu	Lys	Ser	Glu	Lys
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Cys	Pro	Val	Asp	Asn	Val	Lys	Leu	Thr	Val	Val	Val	Asn	Asn	Ile	Ala
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Val	Ala	Glu	Gln	Ile	Gly	Glu	Leu	Phe	Ile	His	Cys	Arg	His	Gly	Cys

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Arg	Val	Ala	Gly	Ser	Gly	Lys	Pro	Pro	Ile	Phe	Glu	Val	Asp	Pro	Arg	
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Ser	Cys	Asp	Tyr	Arg	Pro	Val	Arg	Cys	Pro	Asn	Asn	Pro	Ser	Cys	Pro	
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Pro	Leu	Leu	Arg	Met	Asn	Leu	Glu	Ala	His	Leu	Lys	Glu	Cys	Glu	His	
				245					250					255		
Ile	Lys	Cys	Pro	His	Ser	Lys	Tyr	Gly	Cys	Thr	Phe	Ile	Gly	Asn	Gln	
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Asp	Thr	Tyr	Glu	Thr	His	Leu	Glu	Thr	Cys	Arg	Phe	Glu	Gly	Leu	Lys	
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Glu	Phe	Leu	Gln	Gln	Thr	Asp	Asp	Arg	Phe	His	Glu	Met	His	Val	Ala	
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Leu	Ala	Gln	Lys	Asp	Gln	Glu	Ile	Ala	Phe	Leu	Arg	Ser	Met	Leu	Gly	
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Lys	Leu	Ser	Glu	Lys	Ile	Asp	Gln	Leu	Glu	Lys	Ser	Leu	Glu	Leu	Lys	
				325					330					335		
Phe	Asp	Val	Leu	Asp	Glu	Asn	Gln	Ser	Lys	Leu	Ser	Glu	Asp	Leu	Met	
			340				345						350			
Glu	Phe	Arg	Arg	Asp	Ala	Ser	Met	Leu	Asn	Asp	Glu	Leu	Ser	His	Ile	
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Ile	Phe	Lys	Cys	Lys	Gly	Thr	Phe	Val	Gly	His	Gln	Gly	Pro	Val	Trp	
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				405					410					415		
Asp	Lys	Thr	Ile	Lys	Val	Trp	Asp	Thr	Cys	Thr	Thr	Tyr	Lys	Cys	Gln	
			420					425					430			
Lys	Thr	Leu	Glu	Gly	His	Asp	Gly	Ile	Val	Leu	Ala	Leu	Cys	Ile	Gln	
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Asp	Ile	Gln	Asn	Leu	Gln	Lys	Val	Asn	Thr	Ile	Arg	Ala	His	Asp	Asn	
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Pro	Val	Cys	Thr	Leu	Val	Ser	Ser	His	Asn	Val	Leu	Phe	Ser	Gly	Ser	
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 <211> 574
 <212> DNA
 <213> Homo sapiens

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<210> 4362
 <211> 116
 <212> PRT
 <213> Homo sapiens

<400> 4362
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35 40 45
Glu Val Tyr Ser Val Glu Phe Ser Tyr Asp Glu Asn Thr Val Tyr Ser
50 55 60
Ile Gly Glu Asp Gly Lys Val Gly Gly Ser Arg Ile Gln Ile Arg Glu
65 70 75 80
His Arg Asp Asp Met Trp Ala Gly Cys Arg Leu Trp Pro Tyr Leu Leu
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Leu Ala Leu Gln Pro Gly Ala Ser Phe Cys Ser Phe Val Ile Cys Arg

Ile Gly Ile Asn
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<210> 4363
<211> 1222
<212> DNA
<213> Homo sapiens

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<210> 4364

<211> 75
 <212> PRT
 <213> Homo sapiens

<400> 4364
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<210> 4365
 <211> 469
 <212> DNA
 <213> Homo sapiens

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<210> 4366
 <211> 156
 <212> PRT
 <213> Homo sapiens

<400> 4366
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 35 40 45
 Val Ala Ile Gly Gly Thr Ser Phe Pro Thr Tyr Tyr Arg Ser Met Tyr
 50 55 60
 Pro Lys Glu Val Ile Met Thr Gly Asp Met Met Leu Glu Lys Val Tyr

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Ala	Lys	Glu	Glu	Arg	Val	Val	Asp	Gln	Val	Val	Val	Glu	Asn	Gly	Val
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Arg	Pro	Asp	Glu	Glu	Ile	Tyr	Tyr	Gly	Leu	Lys	Glu	Gly	Ser	Arg	Asn
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Lys	Gly	Gln	Ile	Asp	Val	Glu	Ala	Leu	Phe	Ala	Ile	Lys	Pro	Gln	Pro
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<210> 4367

<211> 852

<212> DNA

<213> Homo sapiens

<400> 4367

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360
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720
tacctcctta actttgtact agactggcct gggcctgccc agctcagcgt tatcagtctg
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852

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<210> 4368

<211> 102

<212> PRT

<213> Homo sapiens

<400> 4368
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 20 25 30
 Phe Glu Glu Thr Leu Asn Ile Leu Ile Tyr Glu Thr Pro Arg Gly Pro
 35 40 45
 Asp Pro Ala Leu Leu Glu Ala Thr Gly Gly Ala Ala Gly Ala Gly Gly
 50 55 60
 Ala Gly Arg Gly Glu Asp Glu Glu Asn Arg Glu His Arg Val Arg Arg
 65 70 75 80
 Ile His Val Arg Arg His Ile Thr His Asp Glu Arg Pro His Gly Gln
 85 90 95
 Gln Ile Val Phe Lys Asp
 100

<210> 4369
 <211> 1264
 <212> DNA
 <213> Homo sapiens

<400> 4369
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 180
 gagaacaata aaaccttggg ctttatcctg tctactctct tagccattgg gaactttcta
 240
 aatggaacta atgccaaagc gtttgagtta agctacctcg agaagggttc agaagtcaaa
 300
 gacacagtgc acaagcagtc gtttctccac catgtgtgca ccatgggtgg agaaaacttc
 360
 ccagacagct ccgatctgta ctcgagatc ggggccatca ccaggtcagc caagggttgac
 420
 tttgatcaac ttcaggataa tttatgtcag atggagagaa gatgcaaagc ttcattggat
 480
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 540
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 aacagattcc actccttttt actctttatg ggccatccac cttatgcaat tcgggaagtg
 660
 aacataaaca aattctgcag gattattagt gaatttgcac tagagtatcg cacaaccagg
 720
 gaaagggttt tgcagcagaa acagaaacgg gcccaaccaca gagagagaaa taagaccaga
 780
 gggaagatga tcaccgattc tggcaagtcc tccggcagtt ctccggcgcc cccaagccag
 840
 ccgcagggtc tgagctatgc ggaggacgcg gctgagcacg agaacatgaa ggctgtgctg
 900
 aaaacctcgt cccctccag gagtccccctg cacatacctt ctccatcgtg tcagctgtgt
 960

ttctcttgat tccgtgacac ccggtttatt agttcaaaag tgtgacacct tttctgggca
 1020
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 1080
 aatctgatta gcttcacaga ctgagtctcc acaacaccaa aatatccaga tgtaaaccac
 1140
 aaacttgtag acaaaagaaa gcacagattg tttacctgtt gtggatttta gatgtaacaa
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<210> 4370

<211> 322

<212> PRT

<213> Homo sapiens

<400> 4370

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Trp	Ala	Phe	Lys	Met	Asp	Tyr	Glu	Thr	Thr	Glu	Lys	Glu	Val	Ala	Glu	35	40	45	
Pro	Leu	Leu	Asp	Leu	Lys	Glu	Gly	Ile	Asp	Gln	Leu	Glu	Asn	Asn	Lys	50	55	60	
Thr	Leu	Gly	Phe	Ile	Leu	Ser	Thr	Leu	Leu	Ala	Ile	Gly	Asn	Phe	Leu	65	70	75	80
Asn	Gly	Thr	Asn	Ala	Lys	Ala	Phe	Glu	Leu	Ser	Tyr	Leu	Glu	Lys	Val	85	90	95	
Pro	Glu	Val	Lys	Asp	Thr	Val	His	Lys	Gln	Ser	Leu	Leu	His	His	Val	100	105	110	
Cys	Thr	Met	Val	Val	Glu	Asn	Phe	Pro	Asp	Ser	Ser	Asp	Leu	Tyr	Ser	115	120	125	
Glu	Ile	Gly	Ala	Ile	Thr	Arg	Ser	Ala	Lys	Val	Asp	Phe	Asp	Gln	Leu	130	135	140	
Gln	Asp	Asn	Leu	Cys	Gln	Met	Glu	Arg	Arg	Cys	Lys	Ala	Ser	Trp	Asp	145	150	155	160
His	Leu	Lys	Ala	Ile	Ala	Lys	His	Glu	Met	Lys	Pro	Val	Leu	Lys	Gln	165	170	175	
Arg	Met	Ser	Glu	Phe	Leu	Lys	Asp	Cys	Ala	Glu	Arg	Ile	Ile	Ile	Leu	180	185	190	
Lys	Ile	Val	His	Arg	Arg	Ile	Ile	Asn	Arg	Phe	His	Ser	Phe	Leu	Leu	195	200	205	
Phe	Met	Gly	His	Pro	Pro	Tyr	Ala	Ile	Arg	Glu	Val	Asn	Ile	Asn	Lys	210	215	220	
Phe	Cys	Arg	Ile	Ile	Ser	Glu	Phe	Ala	Leu	Glu	Tyr	Arg	Thr	Thr	Arg	225	230	235	240
Glu	Arg	Val	Leu	Gln	Gln	Lys	Gln	Lys	Arg	Ala	Asn	His	Arg	Glu	Arg	245	250	255	
Asn	Lys	Thr	Arg	Gly	Lys	Met	Ile	Thr	Asp	Ser	Gly	Lys	Phe	Ser	Gly	260	265	270	
Ser	Ser	Pro	Ala	Pro	Pro	Ser	Gln	Pro	Gln	Gly	Leu	Ser	Tyr	Ala	Glu				

	275		280		285										
Asp	Ala	Ala	Glu	His	Glu	Asn	Met	Lys	Ala	Val	Leu	Lys	Thr	Ser	Ser
	290					295					300				
Pro	Ser	Arg	Ser	Pro	Leu	His	Ile	Pro	Ser	Pro	Ser	Cys	Gln	Leu	Cys
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Phe	Ser														

<210> 4371
 <211> 907
 <212> DNA
 <213> Homo sapiens

<400> 4371
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 120
 gccatcgaca taggcgggtc gttaaccaag ctggcctact attcaacggt acagcacaaa
 180
 gtcgccaagg tgcggtcttt cgaccactcc ggaaaggaca cagaacgtga acatgagccg
 240
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 300
 aatacctaca tcgaagcctg cctggacttc atcaaagacc atctcgtcaa cacagagacc
 360
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 420
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 480
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 660
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 780
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 900
 atgatca
 907

<210> 4372
 <211> 302
 <212> PRT
 <213> Homo sapiens

<400> 4372
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	20	25	30
Asn Leu Glu Asn Ala Lys Arg Phe Ala Ile Asp Ile Gly Gly Ser Leu			
	35	40	45
Thr Lys Leu Ala Tyr Tyr Ser Thr Val Gln His Lys Val Ala Lys Val			
	50	55	60
Arg Ser Phe Asp His Ser Gly Lys Asp Thr Glu Arg Glu His Glu Pro			
65	70	75	80
Pro Tyr Glu Ile Ser Val Gln Glu Glu Ile Thr Ala Arg Leu His Phe			
	85	90	95
Ile Lys Phe Glu Asn Thr Tyr Ile Glu Ala Cys Leu Asp Phe Ile Lys			
	100	105	110
Asp His Leu Val Asn Thr Glu Thr Lys Val Ile Gln Ala Thr Gly Gly			
	115	120	125
Gly Ala Tyr Lys Phe Lys Asp Leu Ile Glu Glu Lys Leu Arg Leu Lys			
	130	135	140
Val Asp Lys Glu Asp Val Met Thr Cys Leu Ile Lys Gly Cys Asn Phe			
145	150	155	160
Val Leu Lys Asn Ile Pro His Glu Ala Phe Val Tyr Gln Lys Asp Ser			
	165	170	175
Asp Pro Glu Phe Arg Phe Gln Thr Asn His Pro His Ile Phe Pro Tyr			
	180	185	190
Leu Leu Val Asn Ile Gly Ser Gly Val Ser Ile Val Lys Val Glu Thr			
	195	200	205
Glu Asp Arg Phe Glu Trp Val Gly Gly Ser Ser Ile Gly Gly Gly Thr			
	210	215	220
Phe Trp Gly Leu Gly Ala Leu Leu Thr Lys Thr Lys Lys Phe Asp Glu			
225	230	235	240
Leu Leu His Leu Ala Ser Arg Gly Gln His Ser Asn Val Asp Met Leu			
	245	250	255
Val Arg Asp Val Tyr Gly Gly Ala His Gln Thr Leu Gly Leu Ser Gly			
	260	265	270
Asn Leu Ile Ala Ser Ser Phe Gly Lys Ser Ala Thr Ala Asp Gln Glu			
	275	280	285
Phe Ser Lys Glu Asp Met Ala Lys Ser Leu Leu His Met Ile			
	290	295	300

<210> 4373

<211> 1017

<212> DNA

<213> Homo sapiens

<400> 4373

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120

ggagtgtgtg agaggaggga gcaaaaagct caccctaaaa catttatctc aaggagaaaa
180

gaaaaagggg gggcgcaaaa atggctgggg caattataga aaacatgagc accaagaagc
240

tgtgcattgt tgggtgggatt ctgctcgtgt tccaaatcat cgcctttctg gtgggagggt
300

tgattgtccc agggcccaca acggcagtgt cctacatgtc ggtgaaatgt gtggatgccc
 360
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 780
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<210> 4374
 <211> 272
 <212> PRT
 <213> Homo sapiens

<400> 4374
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 Gly Leu Ile Ala Pro Gly Pro Thr Thr Ala Val Ser Tyr Met Ser Val
 35 40 45
 Lys Cys Val Asp Ala Arg Lys Asn His His Lys Thr Lys Trp Phe Val
 50 55 60
 Pro Trp Gly Pro Asn His Cys Asp Lys Ile Arg Asp Ile Glu Glu Ala
 65 70 75 80
 Ile Pro Arg Glu Ile Glu Ala Asn Asp Ile Val Phe Ser Val His Ile
 85 90 95
 Pro Leu Pro His Met Glu Met Ser Pro Trp Phe Gln Phe Met Leu Phe
 100 105 110
 Ile Leu Gln Leu Asp Ile Ala Phe Lys Leu Asn Asn Gln Ile Arg Glu
 115 120 125
 Asn Ala Glu Val Ser Met Asp Val Ser Leu Ala Tyr Arg Asp Asp Ala
 130 135 140
 Phe Ala Glu Trp Thr Glu Met Ala His Glu Arg Val Pro Arg Lys Leu
 145 150 155 160
 Lys Cys Thr Phe Thr Ser Pro Lys Thr Pro Glu His Glu Gly Arg Tyr
 165 170 175
 Tyr Glu Cys Asp Val Leu Pro Phe Met Glu Ile Gly Ser Val Ala His

			180					185					190				
Lys	Phe	Tyr	Leu	Leu	Asn	Ile	Arg	Leu	Pro	Val	Asn	Glu	Lys	Lys	Lys		
		195						200					205				
Ile	Asn	Val	Gly	Ile	Gly	Glu	Ile	Lys	Asp	Ile	Arg	Leu	Val	Gly	Ile		
		210						215					220				
His	Gln	Asn	Gly	Gly	Phe	Thr	Lys	Val	Trp	Phe	Ala	Met	Lys	Thr	Phe		
225					230					235					240		
Leu	Thr	Pro	Ser	Ile	Phe	Ile	Ile	Met	Val	Trp	Tyr	Trp	Arg	Arg	Ile		
				245					250					255			
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<210> 4375

<211> 1966

<212> DNA

<213> Homo sapiens

<400> 4375

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1080

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 1966

<210> 4376

<211> 399

<212> PRT

<213> Homo sapiens

<400> 4376

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			20					25					30		
Val	Pro	His	Ser	Ser	Ser	Thr	Phe	Arg	Leu	Thr	Ala	Ser	Phe	Gly	Arg
		35					40				45				
Ala	Gly	Pro	Gly	Met	Leu	His	Thr	Thr	Gln	Leu	Tyr	Gln	His	Val	Pro
	50					55					60				
Glu	Thr	Arg	Trp	Pro	Ile	Val	Tyr	Ser	Pro	Arg	Tyr	Asn	Ile	Thr	Phe
65					70				75					80	
Met	Gly	Leu	Glu	Lys	Leu	His	Pro	Phe	Asp	Ala	Gly	Lys	Trp	Gly	Lys
				85				90					95		
Val	Ile	Asn	Phe	Leu	Lys	Glu	Glu	Lys	Leu	Leu	Ser	Asp	Ser	Met	Leu
			100					105					110		
Val	Glu	Ala	Arg	Glu	Ala	Ser	Glu	Asp	Leu	Leu	Val	Val	His	Thr	
		115					120				125				
Arg	Arg	Tyr	Leu	Asn	Glu	Leu	Lys	Trp	Ser	Phe	Ala	Val	Ala	Thr	Ile

130 135 140
 Thr Glu Ile Pro Pro Val Ile Phe Leu Pro Asn Phe Leu Val Gln Arg
 145 150 155 160
 Lys Val Leu Arg Pro Leu Arg Thr Gln Thr Gly Gly Thr Ile Met Ala
 165 170 175
 Gly Lys Leu Ala Val Glu Arg Gly Trp Ala Ile Asn Val Gly Gly Gly
 180 185 190
 Phe His His Cys Ser Ser Asp Arg Gly Gly Gly Phe Cys Ala Tyr Ala
 195 200 205
 Asp Ile Thr Leu Ala Ile Lys Phe Leu Phe Glu Arg Val Glu Gly Ile
 210 215 220
 Ser Arg Ala Thr Ile Ile Asp Leu Asp Ala His Gln Gly Asn Gly His
 225 230 235 240
 Glu Arg Asp Phe Met Asp Asp Lys Cys Val Thr Cys Met Asp Val Tyr
 245 250 255
 Asn Arg His Ile Tyr Pro Gly Asp Arg Phe Ala Lys Gln Ala Ile Arg
 260 265 270
 Arg Lys Val Glu Leu Glu Trp Gly Thr Glu Asp Asp Glu Tyr Leu Asp
 275 280 285
 Lys Val Glu Arg Asn Ile Lys Lys Ser Leu Gln Glu His Leu Pro Asp
 290 295 300
 Val Val Val Tyr Asn Ala Gly Thr Asp Ile Leu Glu Gly Asp Arg Leu
 305 310 315 320
 Gly Gly Leu Ser Ile Ser Pro Ala Gly Ile Val Lys Arg Asp Glu Leu
 325 330 335
 Val Phe Arg Met Val Arg Gly Arg Arg Val Pro Ile Leu Met Val Thr
 340 345 350
 Ser Gly Gly Tyr Gln Lys Arg Thr Ala Arg Ile Ile Ala Asp Ser Ile
 355 360 365
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 Ser Ala Gln Asn Ser Asp Thr Pro Leu Leu Pro Pro Ala Val Pro
 385 390 395

<210> 4377

<211> 812

<212> DNA

<213> Homo sapiens

<400> 4377

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 360
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 420

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gagtgtgtgc gaaacctaaa cgaacgcac cggcgggacg tcagggtcta catcagcctc
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<210> 4378

<211> 233

<212> PRT

<213> Homo sapiens

<400> 4378

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Leu	Leu	Pro	Pro 20	Glu	Asp	Ser	Arg	Leu	Trp 25	Gln	Tyr	Leu	Leu 30	Ser	Arg
Ser	Met	Arg	Glu	His	Pro	Ala	Leu	Arg	Ser	Leu	Arg	Leu	Leu 45	Thr	Leu
Glu	Gln	Pro	Gln	Gly	Asp	Ser	Met	Met	Thr	Cys	Glu	Gln	Ala	Gln	Leu
Leu 65	Ala	Asn	Leu	Ala	Arg 70	Leu	Ile	Gln	Ala	Lys	Lys	Ala	Leu	Asp	Leu 80
Gly	Thr	Phe	Thr	Gly	Tyr	Ser	Ala	Leu	Ala	Leu	Ala	Leu	Ala	Leu	Pro
Ala	Asp	Gly	Arg	Val	Val	Thr	Cys	Glu	Val	Asp	Ala	Gln	Pro	Pro	Glu
Leu	Gly	Arg	Pro	Leu	Trp	Arg	Gln	Ala	Glu	Ala	Glu	His	Lys	Ile	Arg
Leu	Arg	Leu	Lys	Pro	Ala	Leu	Glu	Thr	Leu	Asp	Glu	Leu	Leu	Ala	Ala
Gly 145	Glu	Ala	Gly	Thr	Phe	Asp	Val	Ala	Val	Val	Asp	Ala	Asp	Lys	Glu 160
Asn	Cys	Ser	Ala	Tyr	Tyr	Glu	Arg	Cys	Leu	Gln	Leu	Leu	Arg	Pro	Gly
Gly	Ile	Leu	Ala	Val	Leu	Arg	Val	Leu	Trp	Arg	Gly	Lys	Val	Leu	Gln
Pro	Pro	Lys	Gly	Asp	Val	Ala	Ala	Glu	Cys	Val	Arg	Asn	Leu	Asn	Glu
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<210> 4379

<211> 2347

<212> DNA

<213> Homo sapiens

<400> 4379

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<211> 652

<212> PRT

<213> Homo sapiens

<400> 4380

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Cys	Asp	Ile	Ser	Cys	Lys	Gly	Gly	His	Ser	Thr	Val	Thr	Asp	Leu	Gln
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Lys	Met	Ser	Leu	Gln	Val	Ile	Lys	Glu	Asn	Leu	Pro	Glu	Asn	Val	Thr
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Xaa	Pro	Xaa	Ala	Leu	Arg	Gly	His	Lys	Thr	Val	Thr	Tyr	Leu	Thr	Leu
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Gly	Ala	Lys	Leu	Leu	Tyr	Thr	Thr	Leu	Arg	His	Pro	Lys	Cys	Phe	Leu
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Asp	Leu	Ala	Ala	Val	Leu	Val	Val	Ser	Arg	Glu	Leu	Thr	His	Leu	Cys
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Phe	Glu	Thr	Leu	Thr	Cys	Ser	Ser	Gly	Thr	Leu	Arg	Thr	Leu	Arg	Leu				
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Lys	Ile	Asp	Asp	Phe	Asn	Asp	Glu	Leu	Asn	Lys	Leu	Leu	Glu	Glu	Ile				
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Glu	Glu	Lys	Asn	Pro	Gln	Leu	Ile	Ile	Asp	Thr	Glu	Lys	His	His	Pro				
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<210> 4381

<211> 1638

<212> DNA

<213> Homo sapiens

<400> 4381

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1080

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<210> 4382
 <211> 325
 <212> PRT
 <213> Homo sapiens

<400> 4382
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 35 40 45
 Phe Ser Ala His Tyr Asp Ala Val Glu Ala Glu Leu Lys Ser Ser Ala
 50 55 60
 Val Gly Leu Val Thr Leu Asn Asp Met Lys Ala Arg Gln Glu Ala Leu
 65 70 75 80
 Val Arg Glu Arg Glu Arg Gln Leu Ala Lys Arg Gln His Leu Glu Glu
 85 90 95
 Gln Arg Leu Gln Gln Glu Arg Gln Arg Glu Gln Glu Gln Arg Arg Glu
 100 105 110
 Arg Lys Arg Lys Ile Ser Cys Leu Ser Phe Ala Leu Asp Asp Leu Asp
 115 120 125
 Asp Gln Ala Asp Ala Ala Glu Ala Arg Arg Ala Gly Asn Leu Gly Lys
 130 135 140
 Asn Pro Asp Val Asp Thr Ser Phe Leu Pro Asp Arg Asp Arg Glu Glu
 145 150 155 160
 Glu Glu Asn Arg Leu Arg Glu Glu Leu Arg Gln Glu Trp Glu Ala Gln
 165 170 175
 Arg Glu Lys Val Lys Asp Glu Glu Met Glu Val Thr Phe Ser Tyr Trp
 180 185 190
 Asp Gly Ser Gly His Arg Arg Thr Val Arg Val Arg Lys Gly Asn Thr
 195 200 205
 Val Gln Gln Phe Leu Lys Lys Ala Leu Gln Gly Leu Arg Lys Asp Phe

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Asp Leu Ile Leu Pro His Tyr His Thr Phe Tyr Asp Phe Ile Ile Ala
      245      250      255
Arg Ala Arg Gly Lys Ser Gly Pro Leu Phe Ser Phe Asp Val His Asp
      260      265      270
Asp Val Arg Leu Leu Ser Asp Ala Thr Met Glu Lys Asp Glu Ser His
      275      280      285
Ala Gly Lys Val Val Leu Arg Ser Trp Tyr Glu Lys Asn Lys His Ile
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<210> 4383
 <211> 419
 <212> DNA
 <213> Homo sapiens

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<210> 4384
 <211> 139
 <212> PRT
 <213> Homo sapiens

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<400> 4384
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Val Leu Lys His Pro Gln Ile Gln Lys Glu Ser Gln Tyr Ile Lys Tyr
      35      40      45
Leu Cys Cys Asp Asp Thr Arg Thr Leu Asn Gln Trp Val Met Gly Ile
      50      55      60
Arg Ile Ala Lys Tyr Gly Lys Thr Leu Tyr Asp Asn Tyr Gln Arg Ala
      65      70      75      80
Val Ala Lys Ala Gly Leu Ala Ser Arg Trp Thr Asn Leu Gly Thr Val

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	85		90		95										
Asn	Ala	Ala	Ala	Pro	Ala	Gln	Pro	Phe	Thr	Gly	Pro	Lys	Thr	Gly	Thr
		100						105					110		
Thr	Gln	Pro	Asn	Gly	Gln	Ile	Pro	Gln	Ala	Thr	His	Phe	Phe	Ser	Ala
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Val	Leu	Gln	Glu	Ala	Gln	Arg	His	Ala	Glu	Asn					
	130					135									

<210> 4385

<211> 754

<212> DNA

<213> Homo sapiens

<400> 4385

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<210> 4386

<211> 85

<212> PRT

<213> Homo sapiens

<400> 4386

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		20					25					30			
Val	Ser	Leu	Gln	Ser	Pro	Asp	Arg	Arg	Leu	Ser	His	Asp	Pro	Ala	Ala
		35				40					45				
Ser	Ser	Trp	Ser	Gly	Phe	Cys	Gly	Ile	Ser	Pro	Ala	Phe	Ser	Ala	Phe

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<210> 4387
<211> 341
<212> DNA
<213> Homo sapiens

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cccccggn ggggggaag gggggggggg tttttcccc cttccccccc ccctaaaaa
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aaaaccgga aaattttttt tcccccccc ccaaaaaaa aaaaaaacc ggggggcccc
240
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341

<210> 4388
<211> 113
<212> PRT
<213> Homo sapiens

<400> 4388
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Ser His Pro Lys Lys Pro Pro Pro Pro Gly Xaa Gly Gly Arg Gly
35 40 45
Gly Gly Phe Phe Pro Pro Pro Pro Pro Pro Lys Lys Lys Thr Arg Lys
50 55 60
Ile Phe Phe Pro Pro Pro Pro Lys Lys Lys Lys Lys Pro Gly Gly Pro
65 70 75 80
Pro Phe Phe Gly Gly Gly Gly Phe Phe Phe Phe Phe Phe Phe Phe
85 90 95
Phe Phe Phe Tyr Lys Thr Glu Asn Val Tyr Cys Ala Arg Gly Trp Ser
100 105 110
Val

<210> 4389
<211> 1895
<212> DNA
<213> Homo sapiens

<400> 4389

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<210> 4390
 <211> 335
 <212> PRT
 <213> Homo sapiens

<400> 4390
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 35 40 45
 Arg Arg Leu Ser Arg His Asp Val Val Ile Leu Asp Ser Leu Asn Tyr
 50 55 60
 Ile Lys Gly Phe Arg Tyr Glu Leu Tyr Cys Leu Ala Arg Ala Ala Arg
 65 70 75 80
 Thr Pro Leu Cys Leu Val Tyr Cys Val Arg Pro Gly Gly Pro Ile Ala
 85 90 95
 Gly Pro Gln Val Ala Gly Ala Asn Glu Asn Pro Gly Arg Asn Val Ser
 100 105 110
 Val Ser Trp Arg Pro Arg Ala Glu Glu Asp Gly Arg Ala Gln Ala Ala
 115 120 125
 Gly Ser Ser Val Leu Arg Glu Leu His Thr Ala Asp Ser Val Val Asn
 130 135 140
 Gly Ser Ala Gln Ala Asp Val Pro Lys Glu Leu Glu Arg Glu Glu Ser
 145 150 155 160
 Gly Ala Ala Glu Ser Pro Ala Leu Val Thr Pro Asp Ser Glu Lys Ser
 165 170 175
 Ala Lys His Gly Ser Gly Ala Phe Tyr Ser Pro Glu Leu Leu Glu Ala
 180 185 190
 Leu Thr Leu Arg Phe Glu Ala Pro Asp Ser Arg Asn Arg Trp Asp Arg
 195 200 205
 Pro Leu Phe Thr Leu Val Gly Ile Glu Glu Pro Leu Pro Pro Ala Gly
 210 215 220
 Ile Arg Ser Ala Leu Phe Glu Asn Arg Ala Pro Pro Pro His Gln Ser
 225 230 235 240
 Thr Gln Ser Gln Pro Leu Ala Ser Gly Ser Phe Leu His Gln Leu Asp
 245 250 255
 Gln Val Thr Ser Gln Val Leu Ala Gly Leu Met Glu Ala Gln Lys Ser
 260 265 270
 Ala Val Pro Gly Asp Leu Leu Thr Leu Pro Gly Thr Thr Glu His Leu
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 Arg Phe Thr Arg Pro Leu Thr Met Ala Glu Leu Ser Arg Leu Arg Arg

290		295		300
Gln Phe Ile Ser Tyr Thr Lys Met His Pro Asn Asn Glu Asn Leu Pro				
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Gln Leu Ala Asn Met Phe Leu Gln Tyr Leu Ser Gln Ser Leu His				320
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<210> 4391
 <211> 988
 <212> DNA
 <213> Homo sapiens

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<210> 4392
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 <212> PRT
 <213> Homo sapiens

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Ala	Ser	Val	Gly	Pro	Gln	Ser	Tyr	Gly	Gly	Gly	Met	Arg	Pro	Pro	Pro				
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Asn	Ser	Leu	Ala	Gly	Pro	Gly	Leu	Pro	Ala	Met	Asn	Met	Gly	Pro	Gly				
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Val	Arg	Gly	Pro	Trp	Ala	Ser	Pro	Ser	Gly	Asn	Ser	Ile	Pro	Tyr	Ser				
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Ser	Ser	Ser	Pro	Gly	Ser	Tyr	Thr	Gly	Pro	Pro	Gly	Gly	Gly	Gly	Pro				
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Pro	Gly	Thr	Pro	Ile	Met	Pro	Ser	Pro	Gly	Asp	Ser	Thr	Asn	Ser	Ser				
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Glu	Asn	Met	Tyr	Thr	Ile	Met	Asn	Pro	Ile	Gly	Gln	Gly	Ala	Gly	Arg				
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Ala	Asn	Phe	Pro	Leu	Gly	Pro	Gly	Pro	Glu	Gly	Pro	Met	Ala	Ala	Met				
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Ser	Ala	Met	Glu	Pro	His	His	Val	Asn	Gly	Ser	Leu	Gly	Ser	Gly	Asp				
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Met	Asp	Gly	Leu	Pro	Lys	Ser	Ser	Pro	Gly	Ala	Val	Ala	Gly	Leu	Ser				
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Asn	Ala	Pro	Gly	Thr	Pro	Arg	Asp	Asp	Gly	Glu	Met	Ala	Ala	Ala	Gly				
			180						185						190				
Thr	Phe	Leu	His	Pro	Phe	Pro	Ser	Glu	Ser	Tyr	Ser	Pro	Gly	Met	Thr				
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<210> 4393
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<212> DNA
<213> Homo sapiens
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480
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<210> 4394
 <211> 428
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Glu Lys Leu Gln Arg Val Leu Glu Lys Ala Ala Leu Lys Leu Gly Arg
 50 55 60
 Pro Thr Leu Ser Ser Glu Val Gly Ile Ile Ile Cys Asp Ile Ala Asn
 65 70 75 80
 Pro Ala Ser Leu Asp Glu Met Ala Lys Gln Ala Thr Val Val Leu Asn
 85 90 95
 Cys Val Gly Pro Tyr Arg Phe Tyr Gly Glu Pro Val Ile Lys Ala Cys
 100 105 110
 Ile Glu Asn Gly Ala Ser Cys Ile Asp Ile Ser Gly Glu Pro Gln Phe
 115 120 125
 Leu Glu Leu Met Gln Leu Lys Tyr His Glu Lys Ala Ala Asp Lys Gly
 130 135 140
 Val Tyr Ile Ile Gly Ser Ser Gly Phe Asp Ser Ile Pro Ala Asp Leu
 145 150 155 160
 Gly Val Ile Tyr Thr Arg Asn Lys Met Asn Gly Thr Leu Thr Ala Val
 165 170 175
 Glu Ser Phe Leu Thr Ile His Ser Gly Pro Glu Gly Leu Ser Ile His
 180 185 190
 Asp Gly Thr Trp Lys Ser Ala Ile Tyr Gly Phe Gly Asp Gln Ser Asn
 195 200 205
 Leu Arg Lys Leu Arg Asn Val Ser Asn Leu Lys Pro Val Pro Leu Ile
 210 215 220
 Gly Pro Lys Leu Lys Arg Arg Trp Pro Ile Ser Tyr Cys Arg Glu Leu
 225 230 235 240
 Lys Gly Tyr Ser Ile Pro Phe Met Gly Ser Asp Val Ser Val Val Arg
 245 250 255
 Arg Thr Gln Arg Tyr Leu Tyr Glu Asn Leu Glu Glu Ser Pro Val Gln
 260 265 270
 Tyr Ala Ala Tyr Val Thr Val Gly Gly Ile Thr Ser Val Ile Lys Leu
 275 280 285
 Met Phe Ala Gly Leu Phe Phe Leu Phe Phe Val Arg Phe Gly Ile Gly
 290 295 300
 Arg Gln Leu Leu Ile Lys Phe Pro Trp Phe Phe Ser Phe Gly Tyr Phe
 305 310 315 320
 Ser Lys Gln Gly Pro Thr Gln Lys Gln Ile Asp Ala Ala Ser Phe Thr
 325 330 335
 Leu Thr Phe Phe Gly Gln Gly Tyr Ser Gln Gly Thr Gly Thr Asp Lys
 340 345 350
 Asn Lys Pro Asn Ile Lys Ile Cys Thr Gln Val Lys Gly Pro Glu Ala
 355 360 365
 Gly Tyr Val Ala Thr Pro Ile Ala Met Val Gln Ala Ala Met Thr Leu

370		375		380
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<210> 4395

<211> 1893

<212> DNA

<213> Homo sapiens

<400> 4395

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<210> 4396
 <211> 463
 <212> PRT
 <213> Homo sapiens

<400> 4396
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 35 40 45
 Ser Thr Glu Ser Ile Arg Leu Glu Val Gly Val Thr Gly Glu Ser Gly
 50 55 60
 Ala Gly Lys Ser Ser Leu Ile Asn Ala Leu Arg Gly Leu Glu Ala Glu
 65 70 75 80
 Asp Pro Gly Ala Ala Leu Thr Gly Val Met Glu Thr Thr Met Gln Pro
 85 90 95
 Ser Pro Tyr Pro His Pro Gln Phe Pro Asp Val Thr Leu Trp Asp Leu
 100 105 110
 Pro Gly Ala Gly Ser Pro Gly Cys Pro Ala Asp Lys Tyr Leu Lys Gln
 115 120 125
 Val Asp Phe Ser Arg Tyr Asp Phe Phe Leu Leu Val Ser Pro Arg Arg
 130 135 140
 Cys Gly Ala Val Glu Thr Arg Leu Ala Ala Glu Ile Leu Cys Gln Gly
 145 150 155 160
 Lys Lys Phe Tyr Phe Val Arg Thr Lys Val Asp Glu Asp Leu Ala Ala
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<212> DNA
<213> Homo sapiens
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360

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 <211> 354
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Asn Ser Pro Val Leu Leu Ser Arg Leu His Phe Glu Lys Asp Ala Asp
 50 55 60
 Ser Ser Glu Arg Ile Ile Ala Pro Met Arg Trp Gly Leu Val Pro Ser
 65 70 75 80
 Trp Phe Lys Glu Ser Asp Pro Ser Lys Leu Gln Phe Asn Thr Thr Asn
 85 90 95
 Cys Arg Ser Asp Thr Val Met Glu Lys Arg Ser Phe Lys Val Pro Leu
 100 105 110
 Gly Lys Gly Arg Arg Cys Val Val Leu Ala Asp Gly Phe Tyr Glu Trp
 115 120 125
 Gln Arg Cys Gln Gly Thr Asn Gln Arg Gln Pro Tyr Phe Ile Tyr Phe
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 165 170 175
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 Tyr Ser Tyr Thr Ile Ile Thr Val Asp Ser Cys Lys Gly Leu Ser Asp
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	260	265
Val Val Lys Lys Glu Leu Arg Ala Ser Gly Ser Ser Gln Arg Met Leu		270
	275	280
Gln Trp Leu Ala Thr Lys Ser Pro Lys Lys Glu Asp Ser Lys Thr Pro		285
	290	295
Gln Lys Glu Glu Ser Asp Val Pro Gln Trp Ser Ser Gln Phe Leu Gln		300
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Lys Ser Pro Leu Pro Thr Lys Arg Gly Thr Ala Gly Leu Leu Glu Gln		320
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<211> 723

<212> DNA

<213> Homo sapiens

<400> 4399

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 85 90 95
 Phe Gln Leu Lys Ile Ala Glu Leu Asn Ser Val Ile Arg Lys Leu Glu
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 115 120 125
 Ser Arg Glu Thr Glu Val Gln Leu Lys Pro Leu Val Glu Lys Asn Lys
 130 135 140
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 145 150 155 160
 Glu Glu Lys Ile Lys Asn Leu Thr Arg Glu Asn Val Glu Met Lys Glu
 165 170 175
 Lys Leu Ser Ala Gln Ala Ser Leu Lys Arg His Thr Ser Leu Asn Asp
 180 185 190
 Leu Ser Leu Thr Arg Asp Glu Gln Glu Ile Glu Phe Leu Arg Leu Gln
 195 200 205
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<210> 4401
 <211> 1131
 <212> DNA
 <213> Homo sapiens

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<212> PRT

<213> Homo sapiens

<400> 4402

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Gln	Tyr	Gly	Arg	Trp	Ala	Val	Val	Ser	Gly	Ala	Thr	Asp	Gly	Ile	Gly
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Leu	Gln	Pro	Thr	Pro	Gln	Leu
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<210> 4403

<211> 4237

<212> DNA

<213> Homo sapiens

<400> 4403

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 Glu Tyr Gln Met Met Leu Leu Thr Lys Met Leu Leu Thr Glu Ile Leu
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Lys Glu Arg Ser Arg Ser Ile Asp Lys Asp Arg Lys Lys Lys Asp Lys		
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<212> DNA

<213> Homo sapiens

<400> 4405

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<212> PRT

<213> Homo sapiens

<400> 4406

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<210> 4408
 <211> 158
 <212> PRT
 <213> Homo sapiens

<400> 4408

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 35 40 45
 Glu Ser Leu His Leu Phe Asn Ser Ile Cys Asn His Lys Tyr Phe Ser
 50 55 60
 Thr Thr Ser Ile Val Leu Phe Leu Asn Lys Lys Asp Ile Phe Gln Glu
 65 70 75 80
 Lys Val Thr Lys Val His Leu Ser Ile Cys Phe Pro Glu Tyr Thr Gly
 85 90 95
 Pro Asn Thr Phe Glu Asp Ala Gly Asn Tyr Ile Lys Asn Gln Phe Leu
 100 105 110
 Asp Leu Asn Leu Lys Lys Glu Asp Lys Glu Ile Tyr Ser His Met Thr
 115 120 125
 Cys Ala Thr Asp Thr Gln Asn Val Lys Phe Val Phe Asp Ala Val Thr
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<210> 4409

<211> 4217

<212> DNA

<213> Homo sapiens

<400> 4409

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 4217

<210> 4410
 <211> 405
 <212> PRT
 <213> Homo sapiens

<400> 4410
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 Ser His Met Ala Thr Arg Ser Arg Glu Asn Ala Arg Arg Arg Gly Thr
 35 40 45
 Pro Glu Pro Glu Glu Ala Gly Arg Arg Gly Gly Lys Arg Pro Lys Pro
 50 55 60
 Pro Pro Gly Val Ala Ser Ala Ser Ala Arg Gly Pro Pro Ala Thr Asp
 65 70 75 80
 Gly Leu Gly Ala Lys Val Lys Leu Glu Glu Lys Gln His His Pro Cys
 85 90 95
 Gln Lys Cys Pro Arg Val Phe Asn Asn Arg Trp Tyr Leu Glu Lys His
 100 105 110
 Met Asn Val Thr His Ser Arg Met Gln Ile Cys Asp Gln Cys Gly Lys
 115 120 125
 Arg Phe Leu Leu Glu Ser Glu Leu Leu Leu His Arg Gln Thr Asp Cys
 130 135 140
 Glu Arg Asn Ile Gln Cys Val Thr Cys Gly Lys Ala Phe Lys Lys Leu
 145 150 155 160
 Trp Ser Leu His Glu His Asn Lys Ile Val His Gly Tyr Ala Glu Lys
 165 170 175
 Lys Phe Ser Cys Glu Ile Cys Glu Lys Lys Phe Tyr Thr Met Ala His
 180 185 190
 Val Arg Lys His Met Val Ala His Thr Lys Asp Met Pro Phe Thr Cys
 195 200 205
 Glu Thr Cys Gly Lys Ser Phe Lys Arg Ser Met Ser Leu Lys Val His
 210 215 220
 Ser Leu Gln His Ser Gly Glu Lys Pro Phe Arg Cys Glu Asn Cys Asp
 225 230 235 240
 Glu Arg Phe Gln Tyr Lys Tyr Gln Leu Arg Ser His Met Ser Ile His
 245 250 255
 Ile Gly His Lys Gln Phe Met Cys Gln Trp Cys Gly Lys Asp Phe Asn
 260 265 270
 Met Lys Gln Tyr Phe Asp Glu His Met Lys Thr His Thr Gly Glu Lys
 275 280 285
 Pro Phe Ile Cys Glu Ile Cys Gly Lys Ser Phe Thr Ser Arg Pro Asn
 290 295 300
 Met Lys Arg His Arg Arg Thr His Thr Gly Glu Lys Pro Tyr Pro Cys

305 310 315 320
 Asp Val Cys Gly Gln Arg Phe Arg Phe Ser Asn Met Leu Lys Ala His
 325 330 335
 Lys Glu Lys Cys Phe Arg Val Ser His Thr Leu Ala Gly Asp Gly Val
 340 345 350
 Pro Ala Ala Pro Gly Leu Pro Pro Thr Gln Pro Gln Ala His Ala Leu
 355 360 365
 Pro Leu Leu Pro Gly Leu Pro Gln Thr Leu Pro Pro Pro Pro His Leu
 370 375 380
 Pro Pro Pro Pro Pro Leu Phe Pro Thr Thr Ala Ser Pro Gly Gly Arg
 385 390 395 400
 Met Asn Ala Asn Asn
 405

<210> 4411
 <211> 484
 <212> DNA
 <213> Homo sapiens

<400> 4411
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 180
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 240
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 300
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 360
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<210> 4412
 <211> 113
 <212> PRT
 <213> Homo sapiens

<400> 4412
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 Leu Ser Ile Lys Glu Glu Gly Pro Arg Leu Gly Leu Gly Gly Leu Gly
 20 25 30
 Ala Gln Ala Val Cys Pro Leu Phe Ser Ser Trp Cys Pro Ala Pro Pro
 35 40 45
 Arg Cys His Leu Pro Gln Trp Gln Trp Gly Phe Ile Thr Gly Ser Ser
 50 55 60
 Gly Pro Leu Pro Met Ala Gly Gly Val Pro Gly Gly Pro Asn Gln Ala

65 70 75 80
 Ala Pro Ala Ser Arg Gln Arg Val Gly Phe Leu Gly Gln Pro Gln Ser
 85 90 95
 Cys Gln Arg Gln His Val Ser Leu His Arg Ser His Gln Ala Pro Leu
 100 105 110
 Asp

<210> 4413

<211> 1097

<212> DNA

<213> Homo sapiens

<400> 4413

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 1080
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 1097

<210> 4414

<211> 65
<212> PRT
<213> Homo sapiens

<400> 4414
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Lys Arg Leu Gly Val Ala Ser Thr Glu Arg Gln Arg Gly Val Ser Phe
20 25 30
Lys Leu Glu Glu Lys Thr Ala His Ser Ser Leu Ala Leu Phe Arg Asp
35 40 45
Asp Thr Gly Val Lys Tyr Gly Leu Val Gly Leu Glu Pro Thr Lys Val
50 55 60
Pro
65

<210> 4415
<211> 775
<212> DNA
<213> Homo sapiens

<400> 4415
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180
aaaaaaaggg aagttaaata actgaagtaa tggtttgccc aaatagcaaa cgtaggatac
240
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600
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<210> 4416
<211> 100
<212> PRT
<213> Homo sapiens

<400> 4416
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 Arg Leu Arg Cys Arg Thr Leu Met Phe Ile Thr Ser Ser Tyr Pro Lys
 35 40 45
 Arg Asn Gly Phe Arg His Val Leu Ser Gln Gln Glu Ile Asp Phe Phe
 50 55 60
 Leu Asn Tyr Leu Ile Leu Leu Pro Asn Ile Thr Glu Val Met Arg Ser
 65 70 75 80
 Leu Val Thr Phe Gly Cys Cys Ala Leu Lys Glu Pro Gly Leu Glu Phe
 85 90 95
 Val Gly Val Ile
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<210> 4417
 <211> 980
 <212> DNA
 <213> Homo sapiens

<400> 4417
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 960

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<210> 4418
<211> 263
<212> PRT
<213> Homo sapiens

<400> 4418
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Asn Gln Leu Leu Lys Met Lys Val Glu Ser Ser Gln Glu Ala Asn Ala
20 25 30
Glu Val Met Arg Glu Met Thr Lys Lys Leu Tyr Ser Gln Tyr Glu Glu
35 40 45
Lys Leu Gln Glu Glu Gln Arg Lys His Ser Ala Glu Lys Glu Ala Leu
50 55 60
Leu Glu Glu Thr Asn Ser Phe Leu Lys Ala Ile Glu Glu Ala Asn Lys
65 70 75 80
Lys Met Gln Ala Ala Glu Ile Ser Leu Glu Glu Lys Asp Gln Arg Ile
85 90 95
Gly Glu Leu Asp Arg Leu Ile Glu Arg Met Glu Lys Glu Arg His Gln
100 105 110
Leu Gln Leu Gln Leu Leu Glu His Glu Thr Glu Met Ser Gly Glu Leu
115 120 125
Thr Asp Ser Asp Lys Glu Arg Tyr Gln Gln Leu Glu Glu Ala Ser Ala
130 135 140
Ser Leu Arg Glu Arg Ile Arg His Leu Asp Asp Met Val His Cys Gln
145 150 155 160
Gln Lys Lys Val Lys Gln Met Val Glu Glu Ile Glu Ser Leu Lys Lys
165 170 175
Lys Val Gln Gln Lys Gln Leu Leu Ile Leu Gln Leu Leu Glu Lys Ile
180 185 190
Ser Phe Leu Glu Gly Glu Asn Asn Glu Leu Gln Ser Arg Leu Asp Tyr
195 200 205
Leu Thr Glu Thr Gln Ala Lys Thr Glu Val Glu Thr Arg Glu Ile Gly
210 215 220
Val Gly Cys Asp Leu Leu Pro Ser Pro Thr Gly Arg Thr Arg Glu Ile
225 230 235 240
Val Met Pro Ser Arg Asn Tyr Thr Pro Tyr Thr Arg Val Leu Glu Leu
245 250 255
Ser Ser Lys Lys Thr Leu Thr
260

<210> 4419
<211> 369
<212> DNA
<213> Homo sapiens

<400> 4419
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120

cctccgcctc cccagctcaa gcaactctcc tgccccagcc acccaagtnn aaattacagg
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 cccgtgccac cacacccggc caatttctgt attttttagta gagacgggggt ttcaccatat
 240
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 agtctcagn
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<210> 4420

<211> 91

<212> PRT

<213> Homo sapiens

<400> 4420

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			20					25					30		
Trp	Cys	Asp	Leu	Gly	Ser	Leu	Gln	Pro	Pro	Pro	Pro	Gln	Leu	Lys	Gln
		35					40					45			
Leu	Ser	Cys	Pro	Ser	His	Pro	Ser	Xaa	Asn	Tyr	Arg	Pro	Val	Pro	Pro
	50				55					60					
His	Pro	Ala	Asn	Phe	Cys	Ile	Phe	Ser	Arg	Asp	Gly	Val	Ser	Pro	Tyr
65				70					75					80	
Trp	Pro	Gly	Arg	Ser	Gln	Thr	Pro	Gly	Pro	Met					
			85					90							

<210> 4421

<211> 1356

<212> DNA

<213> Homo sapiens

<400> 4421

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<211> 58

<212> PRT

<213> Homo sapiens

<400> 4422

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Thr	Trp	Gln	Asn	Pro	Val	Ser	Thr	Lys	Asn	Thr	Lys	Ile	Cys	Arg	Ala
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<212> DNA

<213> Homo sapiens

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<213> Homo sapiens

<400> 4424

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Lys	Ala	Leu	Gly	Lys	Asn	Arg	Ser	Ala	Asp	Phe	Asn	Pro	Asp	Phe	Val
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Phe	Thr	Glu	Lys	Glu	Gly	Thr	Tyr	Asp	Gly	Ser	Trp	Ala	Leu	Ala	Asp
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Thr Lys Ala Asp Thr	Leu Lys Val Lys Asp	Arg Lys Lys Lys Lys
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Lys Gly Gln Glu Ala Gly	Gly Phe Phe Glu Asp	Ala Ser Gln Tyr Asp
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Glu Asn Leu Ser Phe Gln	Asp Met Asn Leu Ser	Arg Pro Leu Leu Lys
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Ala Ile Thr Ala Met Gly	Phe Lys Gln Pro Thr	Pro Ile Gln Lys Ala
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Asp Val Lys Ser Gln Glu	Ala Ala Leu Arg Ala	Ala Pro Asp Ile Leu
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Phe His Leu Ser Ser Ile	Glu Val Leu Ile Leu	Asp Glu Ala Asp Arg
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Glu Val Lys Asp Leu Ala	Ser Val Ser Leu Lys	Asn Pro Val Arg Ile
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Ile Arg Ile Arg Pro Asn	Arg Glu Gly Asp Arg	Glu Ala Ile Val Ala
420	425	430
Ala Leu Leu Thr Arg Thr	Phe Thr Asp His Val	Met Leu Phe Thr Gln
435	440	445
Thr Lys Lys Gln Ala His	Arg Met His Ile Leu	Leu Gly Leu Met Gly
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<211> 1116

<212> PRT

<213> Homo sapiens

<400> 4426

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	35	40	45
Thr Lys Arg Lys Ala Ile Ala Ala Glu Asp Pro Ser Leu Asp Phe Arg			
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Asn Asn Pro Thr Lys Glu Asp Leu Gly Lys Leu Gln Pro Leu Val Ala			
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Ser Tyr Leu Cys Ser Asp Val Thr Ser Val Pro Ser Lys Glu Ser Leu			
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Pro Val Leu Glu Phe Ser Leu Glu Asn Leu Arg Thr Met Asn Thr Ser			
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Gly Gln Thr Ala Leu Pro Gln Ala Pro Val Asn Gly Leu Ala Lys Lys			
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Leu Thr Lys Ser Ser Thr His Ser Asp His Asp Asn Ser Thr Ser Leu			
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Asn Gly Gly Lys Arg Ala Leu Thr Ser Ser Ala Leu His Gly Gly Glu			
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Met Gly Gly Ser Glu Ser Gly Asp Leu Lys Gly Gly Met Thr Asn Cys			
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Thr Leu Pro His Arg Ser Leu Asp Val Glu His Thr Thr Leu Tyr Ser			
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Asn Asn Ser Thr Ala Asn Lys Ser Phe Val Asn Ser Met Glu Gln Pro			
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Ala Leu Gln Gly Ser Ser Arg Leu Ser Pro Gly Thr Asp Ser Ser Ser			
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Asn Leu Gly Gly Val Lys Leu Glu Gly Lys Lys Ser Pro Leu Ser Ser			
	260	265	270
Ile Leu Phe Ser Ala Leu Asp Ser Asp Thr Arg Ile Thr Ala Leu Leu			
	275	280	285
Arg Arg Gln Ala Asp Ile Glu Ser Arg Ala Arg Arg Leu Gln Lys Arg			
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Leu Gln Val Val Gln Ala Lys Gln Val Glu Arg His Ile Gln His Gln			
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Leu Gly Gly Phe Leu Glu Lys Thr Leu Ser Lys Leu Pro Asn Leu Glu			
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Ser Leu Arg Pro Arg Ser Gln Leu Met Leu Thr Arg Lys Ala Glu Ala			
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Ala Leu Arg Lys Ala Ala Ser Glu Thr Thr Thr Ser Glu Gly Leu Ser			
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Asn Phe Leu Lys Ser Asn Ser Ile Ser Glu Glu Leu Glu Arg Phe Thr			
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Ala Ser Gly Ile Ala Asn Leu Arg Cys Ser Glu Gln Ala Phe Asp Ser			
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Asp Val Thr Asp Ser Ser Ser Gly Gly Glu Ser Asp Ile Glu Glu Glu			
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Glu Leu Thr Arg Ala Asp Pro Glu Gln Arg His Val Pro Leu Arg Arg			
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<210> 4427

<211> 4474

<212> DNA

<213> Homo sapiens

<400> 4427

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<211> 763

<212> PRT

<213> Homo sapiens

<400> 4428

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Ser	Ala	Leu	Leu	Thr	Arg	Thr	His	Ile	Asn	Tyr	Gly	Val	Lys	Gly	Asp
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Val	Ala	Val	Val	Arg	Ile	Asn	Ser	Pro	Asn	Ser	Lys	Val	Asn	Thr	Leu
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Ser	Lys	Glu	Leu	His	Ser	Glu	Phe	Ser	Glu	Val	Met	Asn	Glu	Ile	Trp
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Ala	Ser	Asp	Gln	Ile	Arg	Ser	Ala	Val	Leu	Ile	Ser	Ser	Lys	Pro	Gly
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Cys	Phe	Ile	Ala	Gly	Ala	Asp	Ile	Asn	Met	Leu	Ala	Ala	Cys	Lys	Thr
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Leu	Gln	Glu	Val	Thr	Gln	Leu	Ser	Gln	Glu	Ala	Gln	Arg	Ile	Val	Glu
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Lys	Leu	Glu	Lys	Ser	Thr	Lys	Pro	Ile	Val	Ala	Ala	Ile	Asn	Gly	Ser
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Gly	Ala	Leu	Pro	Gly	Ala	Gly	Gly	Thr	Gln	Arg	Leu	Pro	Lys	Met	Val																														
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Gly	Val	Pro	Ala	Ala	Leu	Asp	Met	Met	Leu	Thr	Gly	Arg	Ser	Ile	Arg																														
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Leu	Gly	Pro	Gly	Leu	Lys	Pro	Pro	Glu	Glu	Arg	Thr	Ile	Glu	Tyr	Leu																														
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Glu	Glu	Val	Ala	Ile	Thr	Phe	Ala	Lys	Gly	Leu	Ala	Asp	Lys	Lys	Ile																														
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Ser	Pro	Lys	Arg	Asp	Lys	Gly	Leu	Val	Glu	Lys	Leu	Thr	Ala	Tyr	Ala																														
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Lys	Ala	Leu	Met	Gly	Leu	Tyr	His	Gly	Gln	Val	Leu	Cys	Lys	Lys	Asn																														
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Lys	Phe	Gly	Ala	Pro	Gln	Lys	Asp	Val	Lys	His	Leu	Ala	Ile	Leu	Gly																														
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Gly	Leu	Lys	Gln	Gly	Lys	Val	Ile	Ile	Val	Val	Lys	Asp	Gly	Pro	Gly																														
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Phe	Tyr	Thr	Thr	Arg	Cys	Leu	Ala	Pro	Met	Met	Ser	Glu	Val	Ile	Arg																														
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Ile	Leu	Gln	Glu	Gly	Val	Asp	Pro	Lys	Lys	Le																																			

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Ala Pro Gln Pro Arg Arg Lys Pro Ser Phe Gln Thr Val Gly Ile Pro
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Phe Ile Pro Trp His Arg Glu Pro Lys Gly Met Gln Thr Asp Pro Gly
65 70 75 80
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Pro Arg Arg Ala Leu Pro Pro Arg Pro Pro Pro Ala Asp Ser Pro
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Leu Cys Glu Leu Asn His Leu Gly Ala Met Cys Arg Gly Arg Ala Ser
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 <213> Homo sapiens

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<400> 4434
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 Val Asp Gly Asn Val Thr Asn Ile Thr Thr Val Ser Leu Trp Glu Glu

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Phe	Ser	Ser	Ser	Asp	Leu	Ala	Asp	Leu	Arg	Phe	Leu	Asp	Met	Ser	Gln
	35						40					45			
Asn	Gln	Phe	Gln	Tyr	Leu	Pro	Asp	Gly	Phe	Leu	Arg	Lys	Met	Pro	Ser
	50					55					60				
Leu	Ser	His	Leu	Asn	Leu	His	Gln	Asn	Cys	Leu	Met	Thr	Leu	His	Ile
65					70					75				80	
Arg	Glu	His	Glu	Pro	Pro	Gly	Ala	Leu	Thr	Glu	Leu	Asp	Leu	Ser	His
				85					90					95	
Asn	Gln	Leu	Ser	Glu	Leu	His	Leu	Ala	Pro	Gly	Leu	Ala	Ser	Cys	Leu
		100						105					110		
Gly	Ser	Leu	Arg	Leu	Phe	Asn	Leu	Ser	Ser	Asn	Gln	Leu	Leu	Gly	Val
		115					120					125			
Pro	Pro	Gly	Leu	Phe	Ala	Asn	Ala	Arg	Asn	Ile	Thr	Thr	Leu	Asp	Met
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Ser	His	Asn	Gln	Ile											
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<210> 4435

<211> 783

<212> DNA

<213> Homo sapiens

<400> 4435

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120

gtggacctgc tcctgggagg cgacctgcgc taccatctgc agcagaatgt gcatttcaca
180

gaggggactg tgaaactcta catctgtgag ctggcactgg ccctggagta tcttcagagg
240

taccacatca tccacagaga catcaagcca gacaatatcc tgctggatga acacggacat
300

gttcacatta cagacttcaa catagcgacg gtagtgaaag gagcagaaag ggcttcctcc
360

atggctggca ccaagcccta catggctcca gaagtattcc aggtgtacat ggacagaggc
420

cccggatact cgtaccctgt cgactgggtg tccctgggca tcacagccta tgagctgctg
480

cggggctgga ggccgtacga aatccactcg gtcacgcca tcgatgaaat cctcaacatg
540

ttcaaggtgg agcgtgtcca ctactcctcc acgtgggtgca aggggatggt ggccctgcta
600

aggaagctcc tgaccaagga tcctgagagc cgcgtgtcca gccttcata catacagagc
660

gtgccctact tggccgacat gaactgggac gcggtgttca agaaggcact gatgcccggc
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780

cta

783

<210> 4436

<211> 261
 <212> PRT
 <213> Homo sapiens

<400> 4436
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 Asp Glu Glu Asp Met Phe Met Val Val Asp Leu Leu Leu Gly Gly Asp
 35 40 45
 Leu Arg Tyr His Leu Gln Gln Asn Val His Phe Thr Glu Gly Thr Val
 50 55 60
 Lys Leu Tyr Ile Cys Glu Leu Ala Leu Ala Leu Glu Tyr Leu Gln Arg
 65 70 75 80
 Tyr His Ile Ile His Arg Asp Ile Lys Pro Asp Asn Ile Leu Leu Asp
 85 90 95
 Glu His Gly His Val His Ile Thr Asp Phe Asn Ile Ala Thr Val Val
 100 105 110
 Lys Gly Ala Glu Arg Ala Ser Ser Met Ala Gly Thr Lys Pro Tyr Met
 115 120 125
 Ala Pro Glu Val Phe Gln Val Tyr Met Asp Arg Gly Pro Gly Tyr Ser
 130 135 140
 Tyr Pro Val Asp Trp Trp Ser Leu Gly Ile Thr Ala Tyr Glu Leu Leu
 145 150 155 160
 Arg Gly Trp Arg Pro Tyr Glu Ile His Ser Val Thr Pro Ile Asp Glu
 165 170 175
 Ile Leu Asn Met Phe Lys Val Glu Arg Val His Tyr Ser Ser Thr Trp
 180 185 190
 Cys Lys Gly Met Val Ala Leu Leu Arg Lys Leu Leu Thr Lys Asp Pro
 195 200 205
 Glu Ser Arg Val Ser Ser Leu His Asp Ile Gln Ser Val Pro Tyr Leu
 210 215 220
 Ala Asp Met Asn Trp Asp Ala Val Phe Lys Lys Ala Leu Met Pro Gly
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 245 250 255
 Glu Glu Met Ile Leu
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<210> 4437
 <211> 620
 <212> DNA
 <213> Homo sapiens

<400> 4437
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 240

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 360
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 420
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<210> 4438
 <211> 206
 <212> PRT
 <213> Homo sapiens

<400> 4438
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 Val Val Glu Leu Cys Gln Tyr Arg Val Ser Met Leu Lys Met Asp Glu
 35 40 45
 Ser Thr Leu Leu Arg Glu Ala Gln Glu Leu Ser Leu Glu Lys Leu Gln
 50 55 60
 Gln Ala Val Arg Gln Asn Gly Leu Met Ser Gly Leu Met Gln Met Leu
 65 70 75 80
 Leu Leu Lys Val Ser Ala His Ile Thr Glu Gln Leu Gly Met Ala Pro
 85 90 95
 Gly Gly Glu Phe Arg Glu Ala Phe Lys Glu Ala Ser Lys Val Pro Phe
 100 105 110
 Cys Lys Phe His Leu Gly Asp Arg Pro Ile Pro Val Thr Phe Lys Arg
 115 120 125
 Ala Ile Ala Ala Leu Ser Phe Trp Gln Lys Val Arg Leu Ala Trp Gly
 130 135 140
 Leu Cys Phe Leu Ser Asp Pro Ile Ser Lys Asp Asp Val Glu Arg Cys
 145 150 155 160
 Lys Gln Lys Asp Leu Leu Glu Gln Met Met Ala Glu Met Ile Gly Glu
 165 170 175
 Phe Pro Asp Leu His Arg Thr Ile Val Ser Glu Arg Asp Val Tyr Leu
 180 185 190
 Thr Tyr Met Leu Arg Gln Ala Ala Arg Arg Leu Glu Leu Pro
 195 200 205

<210> 4439
 <211> 2121
 <212> DNA
 <213> Homo sapiens

<400> 4439

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180
ttaccatctt attttttcct ttgagaccaa gcatcacaga ccaaagcca caaagtttac
240
aataatttat tattgttgca tgacatttgc cagtaaaata aattatagaa actatagagt
300
ctttataaac tattttgtat atcatattca cttcctaag cttactgcag taactgtatg
360
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420
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480
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540
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600
gtaataagtg caaataaata atcaattatt gatttctaaa aatctatacc aatagacaat
660
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720
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780
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1620

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 1740
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 1920
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 1980
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 2100
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 2121

<210> 4440
 <211> 82
 <212> PRT
 <213> Homo sapiens

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 20 25 30
 Arg Leu Ser Met Ile Gly Ala Asp Ser Ser Glu Glu Lys Phe Leu Arg
 35 40 45
 Arg Ile Gly Arg Phe Gly Tyr Gly Tyr Gly Pro Tyr Gln Pro Val Pro
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 Glu Gln Pro Leu Tyr Pro Gln Pro Tyr Gln Pro Gln Tyr Gln Gln Tyr
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<210> 4441
 <211> 2055
 <212> DNA
 <213> Homo sapiens

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 180
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420
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480
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780
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1020
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1920

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 2055

<210> 4442

<211> 517

<212> PRT

<213> Homo sapiens

<400> 4442

Met	Gly	Arg	Lys	Ser	Lys	Lys	Trp	Gly	Lys	Lys	Val	Ser	Arg	Tyr	Glu	1	5	10	15
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Trp	Lys	Glu	Lys	Val	Leu	Trp	Ala	Leu	Leu	Ala	Val	Leu	Leu	Ala	Ser	35	40	45	
Trp	Arg	Leu	Trp	Ala	Ile	Lys	Asp	Phe	Gln	Glu	Cys	Thr	Trp	Gln	Val	50	55	60	
Val	Leu	Asn	Glu	Phe	Lys	Arg	Val	Gly	Glu	Ser	Gly	Val	Ser	Asp	Ser	65	70	75	80
Phe	Phe	Glu	Gln	Glu	Pro	Val	Asp	Thr	Val	Ser	Ser	Leu	Phe	His	Met	85	90	95	
Leu	Val	Asp	Ser	Pro	Ile	Asp	Pro	Ser	Glu	Lys	Tyr	Leu	Gly	Phe	Pro	100	105	110	
Tyr	Tyr	Leu	Lys	Ile	Asn	Tyr	Ser	Cys	Glu	Glu	Lys	Pro	Ser	Glu	Asp	115	120	125	
Leu	Val	Arg	Met	Gly	His	Leu	Thr	Gly	Leu	Lys	Pro	Leu	Val	Leu	Val	130	135	140	
Thr	Phe	Gln	Ser	Pro	Val	Asn	Phe	Tyr	Arg	Trp	Lys	Ile	Glu	Gln	Leu	145	150	155	160
Gln	Ile	Gln	Met	Glu	Ala	Ala	Pro	Phe	Arg	Ser	Lys	Gly	Gly	Pro	Gly	165	170	175	
Gly	Gly	Gly	Arg	Asp	Arg	Asn	Leu	Ala	Gly	Met	Asn	Ile	Asn	Gly	Phe	180	185	190	
Leu	Lys	Arg	Asp	Arg	Asp	Asn	Asn	Ile	Gln	Phe	Thr	Val	Gly	Glu	Glu	195	200	205	
Leu	Phe	Asn	Leu	Met	Pro	Gln	Tyr	Phe	Val	Gly	Val	Ser	Ser	Arg	Pro	210	215	220	
Leu	Trp	His	Thr	Val	Asp	Gln	Ser	Pro	Val	Leu	Ile	Leu	Gly	Gly	Ile	225	230	235	240
Pro	Asn	Glu	Lys	Tyr	Val	Leu	Met	Thr	Asp	Thr	Ser	Phe	Lys	Asp	Phe	245	250	255	
Ser	Leu	Val	Glu	Val	Asn	Gly	Val	Gly	Gln	Met	Leu	Ser	Ile	Asp	Ser	260	265	270	
Cys	Trp	Val	Gly	Ser	Phe	Tyr	Cys	Pro	His	Ser	Gly	Phe	Thr	Ala	Thr	275	280	285	
Ile	Tyr	Asp	Thr	Ile	Ala	Thr	Glu	Ser	Thr	Leu	Phe	Ile	Arg	Gln	Asn	290	295	300	
Gln	Leu	Val	Tyr	Tyr	Phe	Thr	Gly	Thr	Tyr	Thr	Thr	Leu	Tyr	Glu	Arg	305	310	315	320
Asn	Arg	Gly	Ser	Gly	Glu	Cys	Ala	Val	Ala	Gly	Pro	Thr	Pro	Gly	Glu				

				325					330					335					
Gly	Thr	Leu	Val	Asn	Pro	Ser	Thr	Glu	Gly	Ser	Trp	Ile	Arg	Val	Leu				
			340						345					350					
Ala	Ser	Glu	Cys	Ile	Lys	Lys	Leu	Cys	Pro	Val	Tyr	Phe	His	Ser	Asn				
		355					360					365							
Gly	Ser	Glu	Tyr	Ile	Met	Ala	Leu	Thr	Thr	Gly	Lys	His	Glu	Gly	Tyr				
	370					375					380								
Val	His	Phe	Gly	Thr	Ile	Arg	Val	Thr	Thr	Cys	Ser	Ile	Ile	Trp	Ser				
385					390					395					400				
Glu	Tyr	Ile	Ala	Gly	Glu	Tyr	Thr	Leu	Leu	Leu	Leu	Val	Glu	Ser	Gly				
			405						410				415						
Tyr	Gly	Asn	Ala	Ser	Lys	Arg	Phe	Gln	Val	Val	Ser	Tyr	Asn	Thr	Ala				
			420					425				430							
Ser	Asp	Asp	Leu	Glu	Leu	Leu	Tyr	His	Ile	Pro	Glu	Phe	Ile	Pro	Glu				
	435						440					445							
Ala	Arg	Gly	Leu	Glu	Phe	Leu	Met	Ile	Leu	Gly	Thr	Glu	Ser	Tyr	Thr				
	450					455					460								
Ser	Thr	Ala	Met	Ala	Pro	Lys	Gly	Ile	Phe	Cys	Asn	Pro	Tyr	Asn	Asn				
465					470				475					480					
Leu	Ile	Phe	Ile	Trp	Gly	Asn	Phe	Leu	Leu	Gln	Arg	Ser	Gly	Thr	Ser				
			485					490					495						
Trp	Arg	Ala	Ala	Thr	Gly	Ser	Thr	Ser	Cys	Ser	Leu	Pro	Arg	Ala	Gly				
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Arg	Cys	Thr	Ser	Ala															
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<210> 4443

<211> 692

<212> DNA

<213> Homo sapiens

<400> 4443

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 180
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 360
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 420
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 540
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692

<210> 4444
<211> 108
<212> PRT
<213> Homo sapiens

<400> 4444
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Leu Met Pro Asn Gln Val Gln Thr Thr Leu Leu Phe Cys Val Thr Leu
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Cys Glu Ala Ser Cys Lys Leu Asp Ser Leu Pro Ser Ala Pro Ser Pro
35 40 45
Lys Ala Gly Leu Gln Glu Val Arg Pro Ala Leu Gln Ala Thr Pro Val
50 55 60
Leu Gly Leu Leu Leu Ser Ser Ser Phe Leu Arg Val Thr Glu Pro Gly
65 70 75 80
Arg Glu Val Gly Cys Gly Leu Pro Cys Pro Tyr Ser His Leu Leu Gln
85 90 95
Leu Pro Pro Cys Trp Thr His Gln Gln Gln Ser Lys
100 105

<210> 4445
<211> 901
<212> DNA
<213> Homo sapiens

<400> 4445
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240
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300
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420
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720

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 780
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 900
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 901

<210> 4446
 <211> 140
 <212> PRT
 <213> Homo sapiens

<400> 4446
 Met Leu Gln Trp Ile Thr Gln His Pro Ser Gln Gly Pro Met Pro Leu
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 Lys Met Asp Leu Pro Pro Gly Asp Pro Gly Val Leu Pro Leu Ser Cys
 20 25 30
 Pro Gln Glu Cys Pro Asp Pro His Ser Tyr Pro Gly Pro Arg Ser Pro
 35 40 45
 Thr Pro Gly Leu Pro Ser Ser Ala Val Asn Asp Asp Leu Leu Leu Leu
 50 55 60
 Pro Ser Ser Leu Pro Ser Val Thr Lys Gly Leu Pro Arg Cys Gln Leu
 65 70 75 80
 Trp Asn Glu Gly Cys Pro Trp Glu Val Met Ile Leu Arg Tyr Thr Gly
 85 90 95
 Ala Gln Gln Ile Ala Ser Ser Tyr Pro Gln Thr Val Phe Ala Cys Met
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<210> 4447
 <211> 951
 <212> DNA
 <213> Homo sapiens

<400> 4447
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<210> 4448

<211> 263

<212> PRT

<213> Homo sapiens

<400> 4448

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			20					25					30		
Asp	Arg	Gly	Pro	Trp	Arg	Val	Gly	Val	Val	Gly	Tyr	Gly	Arg	Leu	Gly
		35					40					45			
Gln	Ser	Leu	Val	Ser	Arg	Leu	Leu	Ala	Gln	Gly	Ser	Glu	Leu	Gly	Leu
	50					55					60				
Glu	Leu	Val	Phe	Val	Trp	Asn	Arg	Asp	Pro	Gly	Arg	Met	Ala	Gly	Ser
65					70				75					80	
Val	Pro	Pro	Ala	Leu	Gln	Leu	Glu	Asp	Leu	Thr	Thr	Leu	Glu	Glu	Arg
			85					90						95	
His	Pro	Asp	Leu	Val	Val	Glu	Val	Ala	His	Pro	Lys	Ile	Ile	His	Glu
			100					105						110	
Ser	Gly	Val	Gln	Ile	Leu	Arg	His	Ala	Asn	Leu	Leu	Ser	Leu	Arg	Val
	115						120					125			
Thr	Met	Ala	Thr	His	Pro	Asp	Gly	Phe	Arg	Leu	Glu	Gly	Pro	Leu	Ala
	130					135					140				
Ala	Ala	His	Ser	Pro	Gly	Pro	Cys	Thr	Val	Leu	Tyr	Glu	Gly	Pro	Val
145					150					155				160	
Arg	Gly	Leu	Cys	Pro	Phe	Ala	Pro	Arg	Asn	Ser	Asn	Thr	Met	Ala	Ala
			165					170						175	
Ala	Ala	Leu	Ala	Ala	Pro	Ser	Leu	Gly	Phe	Asp	Gly	Val	Ile	Gly	Val
		180					185					190			
Leu	Val	Ala	Asp	Thr	Ser	Leu	Thr	Asp	Met	His	Val	Val	Asp	Val	Glu
	195					200					205				
Leu	Ser	Gly	Pro	Arg	Gly	Pro	Thr	Gly	Arg	Ser	Phe	Ala	Val	His	Thr
	210				215						220				
Arg	Arg	Glu	Asn	Pro	Ala	Glu	Pro	Gly	Ala	Val	Thr	Gly	Ser	Ala	Thr

225		230		235		240									
Val	Thr	Ala	Phe	Trp	Arg	Ser	Leu	Leu	Ala	Cys	Cys	Gln	Leu	Pro	Ser
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<210> 4449

<211> 1365

<212> DNA

<213> Homo sapiens

<400> 4449

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1140
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1260

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 1365

<210> 4450
 <211> 194
 <212> PRT
 <213> Homo sapiens

<400> 4450
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 Gly Pro Gln Asn Arg Tyr Ala Leu Ile Cys Gln Gln Cys Phe Ser His
 35 40 45
 Asn Gly Met Ala Leu Lys Glu Glu Phe Glu Tyr Ile Ala Phe Arg Cys
 50 55 60
 Ala Tyr Cys Phe Phe Leu Asn Pro Ala Arg Lys Thr Arg Pro Gln Ala
 65 70 75 80
 Pro Arg Leu Pro Glu Phe Ser Phe Glu Lys Arg Gln Val Val Glu Gly
 85 90 95
 Ser Ser Ser Val Gly Pro Leu Pro Ser Gly Ser Val Leu Ser Ser Asp
 100 105 110
 Asn Gln Phe Asn Glu Glu Ser Leu Glu His Asp Val Leu Asp Asp Asn
 115 120 125
 Thr Glu Gln Thr Asp Asp Lys Ile Pro Ala Thr Glu Gln Thr Asn Gln
 130 135 140
 Val Ile Glu Lys Ala Ser Asp Ser Glu Glu Pro Glu Glu Lys Gln Glu
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 Thr Glu Asn Glu Glu Ala Ser Val Ile Glu Thr Asn Ser Thr Val Pro
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 180 185 190
 Ala Glu

<210> 4451
 <211> 1637
 <212> DNA
 <213> Homo sapiens

<400> 4451
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1380
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<210> 4452

<211> 328

<212> PRT

<213> Homo sapiens

<400> 4452

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Lys Tyr Asn Phe Tyr Leu Pro Phe Phe Phe Gly Pro Ile Met Thr
      35           40           45
Phe Asp Arg Phe His Ala Gln Val Ser Gln Val Glu Pro Val Arg Arg
      50           55           60
Glu Gly Glu Leu Trp His Ile Arg Ala Gln Ala Gly Leu Ser Val Val
      65           70           75           80
Ala Ile Met Ala Val Asp Ile Phe Phe His Phe Phe Tyr Ile Leu Thr
      85           90           95
Ile Pro Ser Asp Leu Lys Phe Ala Asn Arg Leu Pro Asp Ser Ala Leu
      100          105          110
Ala Gly Leu Ala Tyr Ser Asn Leu Val Tyr Asp Trp Val Lys Ala Ala
      115          120          125
Val Leu Phe Gly Val Val Asn Thr Val Ala Cys Leu Asp His Leu Asp
      130          135          140
Pro Pro Gln Pro Pro Lys Cys Ile Thr Ala Leu Tyr Val Phe Ala Glu
      145          150          155          160
Thr His Phe Asp Arg Gly Ile Asn Asp Trp Leu Cys Lys Tyr Val Tyr
      165          170          175
Asn His Ile Gly Gly Glu His Ser Ala Val Ile Pro Glu Leu Ala Ala
      180          185          190
Thr Val Ala Thr Phe Ala Ile Thr Thr Leu Trp Leu Gly Pro Cys Asp
      195          200          205
Ile Val Tyr Leu Trp Ser Phe Leu Asn Cys Phe Gly Leu Asn Phe Glu
      210          215          220
Leu Trp Met Gln Lys Leu Ala Glu Trp Gly Pro Leu Ala Arg Ile Glu
      225          230          235          240
Ala Ser Leu Ser Val Gln Met Ser Arg Arg Val Arg Ala Leu Phe Gly
      245          250          255
Ala Met Asn Phe Trp Ala Ile Ile Met Tyr Asn Leu Val Ser Leu Asn
      260          265          270
Ser Leu Lys Phe Thr Glu Leu Val Ala Arg Arg Leu Leu Leu Thr Gly
      275          280          285
Phe Pro Gln Thr Thr Leu Ser Ile Leu Phe Val Thr Tyr Cys Gly Val
      290          295          300
Gln Leu Val Lys Glu Arg Glu Arg Thr Leu Ala Leu Glu Glu Glu Gln
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Lys Gln Asp Lys Glu Lys Pro Glu
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<210> 4453

<211> 685

<212> DNA

<213> Homo sapiens

<400> 4453

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gcacatctat acccactctg gctctgaaag gcttgtcaac caaaaatggg cagctggggc
180

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<210> 4454
<211> 207
<212> PRT
<213> Homo sapiens

<400> 4454
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35 40 45
Gly Pro Leu Ser Leu Gly Ser Ser Ile Gln Pro Leu Ser Gln Gln Arg
50 55 60
Gln Asp Cys Gly Pro Leu Cys Phe Leu Asn Arg Ala Gln Gly Ser Gln
65 70 75 80
Gly Met Pro Ser Leu Gln His Ser Thr Leu Trp Ser Gln Trp Ser Arg
85 90 95
Arg Ser Ser Leu Lys Tyr Tyr Tyr Arg Gly Glu Arg Pro Ile Leu Ala
100 105 110
Met Leu Leu Tyr Leu Pro Arg Pro Lys Thr Val Leu Cys Ser Phe Ser
115 120 125
Cys Ser Glu Ile Arg Ser Gln Asn Ser Arg Arg His Ser Phe Gly Lys
130 135 140
Lys Gly His Ala Phe Val Leu Tyr Leu Ile Leu Val Ser Glu Ala Leu
145 150 155 160
Ile Pro Val Asp Cys Gly Leu Arg Trp Ser Pro Pro Gln Asp Pro Gln
165 170 175
Leu Gln Arg Gln Arg Arg Met Lys Glu Glu Gln Pro Pro Gln Asp Leu
180 185 190
Leu His Trp Glu Pro His Pro Thr Phe Ser Val Pro Phe Thr Arg
195 200 205

<210> 4455
<211> 882

<212> DNA

<213> Homo sapiens

<400> 4455

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 180
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 720
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 780
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 882

<210> 4456

<211> 261

<212> PRT

<213> Homo sapiens

<400> 4456

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Asn	Leu	Asp	Glu	Lys	Asp	Leu	Lys	Pro	Leu	Phe	Glu	Glu	Phe	Gly	Lys
		20						25					30		
Ile	Tyr	Glu	Leu	Thr	Val	Leu	Lys	Asp	Arg	Phe	Thr	Gly	Met	His	Lys
		35					40					45			
Gly	Cys	Ala	Phe	Leu	Thr	Tyr	Cys	Glu	Arg	Glu	Ser	Ala	Leu	Lys	Ala
	50					55				60					
Gln	Ser	Ala	Leu	His	Glu	Gln	Lys	Thr	Leu	Pro	Gly	Met	Asn	Arg	Pro
65				70				75					80		
Ile	Gln	Val	Lys	Pro	Ala	Asp	Ser	Glu	Ser	Arg	Gly	Asp	Ser	Ser	Cys
			85				90					95			
Leu	Arg	Gln	Pro	Pro	Ser	His	Arg	Lys	Leu	Phe	Val	Gly	Met	Leu	Asn

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<210> 4457
<211> 1491
<212> DNA
<213> Homo sapiens
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780
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<210> 4458

<211> 405

<212> PRT

<213> Homo sapiens

<400> 4458

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			20					25					30		
Lys	Gly	Gly	Tyr	Leu	Met	Leu	Ser	Phe	Ile	Asp	Phe	Cys	Pro	Phe	Ser
		35					40					45			
Val	Met	Arg	Leu	Arg	Ser	Leu	Pro	Ser	Pro	Gln	Arg	Tyr	Thr	Arg	Gln
	50					55					60				
Glu	Arg	Tyr	Arg	Ala	Arg	Pro	Pro	Arg	Val	Leu	Glu	Arg	Ser	Gly	Phe
65				70						75				80	
His	Asn	Glu	Asn	Ser	Leu	Ala	Ile	Tyr	Gln	Gly	Leu	Val	Tyr	Tyr	Leu
			85					90					95		
Leu	Trp	Leu	His	Ser	Val	Tyr	Asp	Lys	Asp	Tyr	Tyr	Phe	Phe	Leu	Ala
			100					105					110		
Ser	Asn	Trp	Arg	Ser	Ala	Gly	Gly	Val	Ser	Ile	Glu	Met	Asp	Ser	Tyr
		115				120					125				
Glu	Lys	Ile	Tyr	Asn	Leu	Glu	Ser	Ala	Tyr	Glu	Leu	Pro	Glu	Arg	Ile
		130				135					140				
Phe	Leu	Asp	Lys	Gly	Thr	Glu	Tyr	Ser	Phe	Ala	Ile	Phe	Leu	Ser	Ala
145				150					155					160	
Gln	Gly	His	Ser	Phe	Arg	Thr	Gln	Ser	Glu	Leu	Gly	Leu	Arg	Gly	Thr
			165					170					175		
Arg	Val	Glu	Pro	Glu	Gly	Arg	Gly	Glu	Gly	Tyr	Gln	Asn	Leu	Gly	Ala

			180				185				190				
Trp	Gly	Ala	Gly	Thr	Pro	Ser	Glu	Gly	Arg	Gly	Leu	Ser	Val	Asp	Val
			195				200				205				
Gly	Val	Val	Leu	Ala	Asp	Pro	Gly	Cys	Ile	Glu	Ala	Ser	Val	Lys	Gln
			210				215				220				
Glu	Val	Leu	Ile	Asn	Arg	Asn	Ser	Val	Leu	Phe	Ser	Ile	Thr	Leu	Lys
			225				230				235				
Asp	Lys	Lys	Leu	Cys	Tyr	Asp	Gln	Gly	Ile	Ser	Gly	His	His	Leu	Met
			245				250				255				
Glu	Thr	Ser	Met	Thr	Val	Asn	Val	Arg	Ser	Lys	Pro	Gly	Gly	Glu	Gly
			260				265				270				
Lys	Arg	Leu	Ala	Phe	Asp	Ile	Thr	Tyr	Thr	Leu	Glu	Tyr	Ser	Arg	Leu
			275				280				285				
Lys	Asn	Lys	His	Tyr	Phe	Asp	Cys	Val	Asn	Val	Asn	Pro	Glu	Met	Pro
			290				295				300				
Cys	Phe	Leu	Phe	Arg	Asp	Ser	Val	Tyr	Val	Leu	Leu	Val	Val	Gly	Gly
			305				310				315				
Gly	Pro	Thr	Leu	Asp	Ser	Leu	Lys	Asp	Tyr	Ser	Glu	Asp	Glu	Ile	Tyr
			325				330				335				
Arg	Phe	Asn	Ser	Pro	Leu	Asp	Lys	Thr	Asn	Ser	Leu	Ile	Trp	Thr	Thr
			340				345				350				
Arg	Thr	Thr	Arg	Thr	Thr	Lys	Asp	Ser	Ala	Phe	His	Ile	Met	Ser	His
			355				360				365				
Glu	Ser	Pro	Gly	Ile	Glu	Trp	Leu	Cys	Leu	Glu	Asn	Ala	Pro	Cys	Tyr
			370				375				380				
Asp	Asn	Val	Pro	Gln	Gly	Ile	Phe	Ala	Pro	Glu	Phe	Phe	Phe	Lys	Val
			385				390				395				
Leu	Val	Ser	Asn	Arg											
			405												

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<210> 4459
<211> 1114
<212> DNA
<213> Homo sapiens
```

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<400> 4459
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60
aaggcaacac cgaggggaggc ccagcaccac agtccatggc agacacatgg ttcagacttg
120
gccgattgat ctaagaaact ttattgctca gaaccttccc tccctgggca atggaaagag
180
ctttggagac cagcccatgg ggacagagtc agaggcactg ggtgtaaaaa aagagcgagc
240
gtgtggcaca tttgggtccat tgtcatgtgt gggtatggca ggaggagggg gtaatctaga
300
agccccacat ctaggggcctt ctagggaccc agatatgccc ccttaggcaa ggctcacatg
360
ccaaagcaaa gcagatgagg tcagcctggc ttggggttgag ggctcagtgc ctcttagcct
420
tgccctgggg ttcttggacc ttccggaaac tgagccacat caggctcacg ttgatagcat
480
aggtggtgat acaaacaatg cagaaatcat agagcacgaa gaacaggatc caggccaggt
540

```

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agacagaacc agcgagagac accagggagc tcagcagcat caggacagag gccagcgtg
600
tccgcaggca acctaacaat agctgtagtg tgtagaagat gcaaccgaat atgctgttgg
660
attgattgag gatgctgtcc tgtcccagca catgetccac cagcccgaaa cccctgcccc
720
acctggagga gaagacgcgc gaacagctga tggcggtgcc cacgtcgcag agcgcgcggt
780
aatcccggtc ccgggcgcgc gccgccttca cgtgcagcgc gtagagcgag agcactaagc
840
ccgtcaggca aagagcgagc cgcacccagc cagggctccc ccaggtgctg cccattatct
900
ccaggttccg cccgaggcgc ccgcggagaa aaccagccac ggagcagggg ccgggcggcg
960
aatggccgcg cccctcctgg ccctctgact cggcgattgg ccggccgtgc tcgcactcca
1020
cgacccaaat ggctgttcca gggcgctagt caagcgggcg agttaggaaa acagcgaaga
1080
atgccgggac tagtgaagcg ggtaagggac gtgc
1114

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<210> 4460
<211> 121
<212> PRT
<213> Homo sapiens

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<400> 4460
Trp Arg Cys Pro Arg Arg Arg Ala Arg Gly Asn Pro Gly Pro Gly Arg
1      5      10      15
Ala Pro Pro Ser Arg Ala Ala Arg Arg Ala Arg Ala Leu Ser Pro Ser
20     25     30
Gly Lys Glu Arg Ala Ala Pro Ser Gln Gly Ser Pro Arg Cys Cys Pro
35     40     45
Leu Ser Pro Gly Ser Ala Arg Gly Ala Arg Gly Glu Asn Gln Pro Arg
50     55     60
Ser Arg Gly Arg Ala Ala Asn Gly Arg Ala Pro Pro Gly Pro Leu Thr
65     70     75     80
Arg Arg Leu Ala Gly Arg Ala Arg Thr Pro Arg Pro Lys Trp Leu Phe
85     90     95
Gln Gly Ala Ser Gln Ala Gly Glu Leu Gly Lys Gln Arg Arg Met Pro
100    105    110
Gly Leu Val Lys Arg Val Arg Asp Val
115    120

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<210> 4461
<211> 488
<212> DNA
<213> Homo sapiens

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<400> 4461
acagagtcct acaccagcac tgcaatggcc cccaagggca tcttctgtaa cccgtacaac
60
aatctgatct tcatctgggg caacttctc ctgcagagct ctaacaagga aaacttcac
120

```

tacctggcag acttccccaa ggaactgtcc atcaaataca tggccagatc gttccgtggg
180
gctgtggcta ttgtcacaga gacggaggag gtgggctgcc ccgcccttct cccattccc
240
tctctgccca cccccaaacc ccagggggccc ctctttcccc cgtcacagta aaggagccaa
300
gggaaggggg caccctcggg gaccctgaga aagggcagtg aagctccatt tataactgaa
360
actcctggaa ctcagggtaa gtgtcagctc caaagtcacg cagaccggag ctatgatccg
420
atgttcagag gcggccctct ttcacccac agtgtggtcg ttcacttcat aaatattgag
480
catttaaa
488

<210> 4462

<211> 96

<212> PRT

<213> Homo sapiens

<400> 4462

Thr	Glu	Ser	Tyr	Thr	Ser	Thr	Ala	Met	Ala	Pro	Lys	Gly	Ile	Phe	Cys
1				5					10					15	
Asn	Pro	Tyr	Asn	Asn	Leu	Ile	Phe	Ile	Trp	Gly	Asn	Phe	Leu	Leu	Gln
			20					25					30		
Ser	Ser	Asn	Lys	Glu	Asn	Phe	Ile	Tyr	Leu	Ala	Asp	Phe	Pro	Lys	Glu
			35				40					45			
Leu	Ser	Ile	Lys	Tyr	Met	Ala	Arg	Ser	Phe	Arg	Gly	Ala	Val	Ala	Ile
	50					55					60				
Val	Thr	Glu	Thr	Glu	Glu	Val	Gly	Cys	Pro	Ala	Leu	Leu	Pro	Ile	Pro
65					70				75					80	
Ser	Leu	Pro	Thr	Pro	Lys	Pro	Gln	Gly	Pro	Leu	Phe	Pro	Pro	Ser	Gln
				85				90						95	

<210> 4463

<211> 2662

<212> DNA

<213> Homo sapiens

<400> 4463

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120
cctcccatgg gccatttgct ccctggaggc cctcgogtct tgctgagccc ggggagttag
180
gatgacgca gcggtgaggg aaccggaac aattccttca cagaacaatt gaggcgaggc
240
ctttgggagt actttgtggg acggaccctg gcgggcccctg ccagacgcac agggatggcg
300
gcggaggcgg ccgatttggg gctggggggcc gccgtccccg tggagctgag gcgggagcga
360
cgcatggtgt gcgtggagta cccgggagtg gtgcgtgatg tggctaagat gctgccgact
420

ctgggcggtg aggaaggcgt ctcccggatc tacgcagacc ccaccaagag gctggagctg
480
tacttccggc ccaaggaccc atactgccac ccagtgtgcg ccaaccgctt cagtaccagc
540
agcctgctgc tccgcatcag gaagagaacg aggcggcaga aaggggtgct gggcactgag
600
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660
tttcagggga tgtctgactt ccagtacttg gctgtgcata cggaagcagg cggcaagcat
720
acgtcaatgt atgacaaggt gctcatgctc cggcccgaga aggaggcctt tttccaccag
780
gagctgccgc tctacatccc cccacccatc ttctcccggc tggacgcccc ggtggactac
840
ttctaccgac cagagaccca gcaccgggaa ggctacaaca atccccccat ctcagggtgag
900
aatctgattg gcctgagcag agcccggcgc cccacaatg ccatctttgt caactttgag
960
gatgaggagg tgcccaagca gccactggag gctgcagccc agacgtggag gagagtctgc
1020
actaaccgctg tggaccggaa ggtggaggag gagctgagga agctgtttga catccgtccc
1080
atctgggtccc gaaatgctgt caaggccaac atcagcgtcc acccagacaa gctcaaggct
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1200
tttgggtatg acccccgaaa aaaccagat gccaaagatt atcaagtcct cgatttccga
1260
atccgttgtg gaatgaaaca cggttacgcc cccagtgact tgccgggtcaa agcaaagcgc
1320
agcacctaca actacagcct ccccatcacc gtcaagaaga catccagcca gcttgtcacc
1380
atgcatgacc tgaagcaggg cctgggcccgg tcggggacga gtggtgctcg gaaaccagct
1440
tccagcaagt acaagctcaa ggactctgtc tacatcttcc gggaaggggc cttgccaccc
1500
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1560
caccgcaatg acggggcaga gaattcctgc acagaacggg atgggtggtg cctccccaag
1620
accagcgacg agctcagggg caccatgtcc ctcatgatcc ggcagaccat ccgctccaag
1680
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1740
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1800
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1920
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1980
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2040

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 2100
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 2160
 aatgccggag gtggagctgg gcagctgtgg agccccaggc cacaggccag tctcgcttgg
 2220
 ctctcatgac tgtggtggtg gagatagcgt ggggagcctc gcccatgggc tcacgtggca
 2280
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 2340
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 2400
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 2460
 atattccttc attcattcct tcattcattc agtgacatgc tggcagtgcg ggctgtgccc
 2520
 cccctcacat gtggtcgggt tgggtgaggg cagctaggaa gactccaggg gctgggtcag
 2580
 ttcttctcta aatgaatacc cttctgacga agtcatggga gacggggcct gctgtcctgt
 2640
 gggctgccag tgtgaaacta gt
 2662

<210> 4464

<211> 519

<212> PRT

<213> Homo sapiens

<400> 4464

Met	Ala	Ala	Glu	Ala	Ala	Asp	Leu	Gly	Leu	Gly	Ala	Ala	Val	Pro	Val
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Glu	Leu	Arg	Arg	Glu	Arg	Arg	Met	Val	Cys	Val	Glu	Tyr	Pro	Gly	Val
		20						25					30		
Val	Arg	Asp	Val	Ala	Lys	Met	Leu	Pro	Thr	Leu	Gly	Gly	Glu	Glu	Gly
	35						40				45				
Val	Ser	Arg	Ile	Tyr	Ala	Asp	Pro	Thr	Lys	Arg	Leu	Glu	Leu	Tyr	Phe
	50					55				60					
Arg	Pro	Lys	Asp	Pro	Tyr	Cys	His	Pro	Val	Cys	Ala	Asn	Arg	Phe	Ser
65			70					75					80		
Thr	Ser	Ser	Leu	Leu	Leu	Arg	Ile	Arg	Lys	Arg	Thr	Arg	Arg	Gln	Lys
			85					90					95		
Gly	Val	Leu	Gly	Thr	Glu	Ala	His	Ser	Glu	Val	Thr	Phe	Asp	Met	Glu
		100						105					110		
Ile	Leu	Gly	Ile	Ile	Ser	Thr	Ile	Tyr	Lys	Phe	Gln	Gly	Met	Ser	Asp
	115					120					125				
Phe	Gln	Tyr	Leu	Ala	Val	His	Thr	Glu	Ala	Gly	Gly	Lys	His	Thr	Ser
	130					135				140					
Met	Tyr	Asp	Lys	Val	Leu	Met	Leu	Arg	Pro	Glu	Lys	Glu	Ala	Phe	Phe
145				150				155					160		
His	Gln	Glu	Leu	Pro	Leu	Tyr	Ile	Pro	Pro	Pro	Ile	Phe	Ser	Arg	Leu
			165					170					175		
Asp	Ala	Pro	Val	Asp	Tyr	Phe	Tyr	Arg	Pro	Glu	Thr	Gln	His	Arg	Glu
		180						185				190			
Gly	Tyr	Asn	Asn	Pro	Pro	Ile	Ser	Gly	Glu	Asn	Leu	Ile	Gly	Leu	Ser

```

      195              200              205
Arg Ala Arg Arg Pro His Asn Ala Ile Phe Val Asn Phe Glu Asp Glu
  210              215              220
Glu Val Pro Lys Gln Pro Leu Glu Ala Ala Ala Gln Thr Trp Arg Arg
  225              230              235              240
Val Cys Thr Asn Pro Val Asp Arg Lys Val Glu Glu Glu Leu Arg Lys
      245              250              255
Leu Phe Asp Ile Arg Pro Ile Trp Ser Arg Asn Ala Val Lys Ala Asn
      260              265              270
Ile Ser Val His Pro Asp Lys Leu Lys Val Leu Leu Pro Phe Ile Ala
      275              280              285
Tyr Tyr Met Ile Thr Gly Pro Trp Arg Ser Leu Trp Ile Arg Phe Gly
      290              295              300
Tyr Asp Pro Arg Lys Asn Pro Asp Ala Lys Ile Tyr Gln Val Leu Asp
  305              310              315              320
Phe Arg Ile Arg Cys Gly Met Lys His Gly Tyr Ala Pro Ser Asp Leu
      325              330              335
Pro Val Lys Ala Lys Arg Ser Thr Tyr Asn Tyr Ser Leu Pro Ile Thr
      340              345              350
Val Lys Lys Thr Ser Ser Gln Leu Val Thr Met His Asp Leu Lys Gln
      355              360              365
Gly Leu Gly Arg Ser Gly Thr Ser Gly Ala Arg Lys Pro Ala Ser Ser
      370              375              380
Lys Tyr Lys Leu Lys Asp Ser Val Tyr Ile Phe Arg Glu Gly Ala Leu
  385              390              395              400
Pro Pro Tyr Arg Gln Met Phe Tyr Gln Leu Cys Asp Leu Asn Val Glu
      405              410              415
Glu Leu Gln Lys Ile Ile His Arg Asn Asp Gly Ala Glu Asn Ser Cys
      420              425              430
Thr Glu Arg Asp Gly Trp Cys Leu Pro Lys Thr Ser Asp Glu Leu Arg
      435              440              445
Asp Thr Met Ser Leu Met Ile Arg Gln Thr Ile Arg Ser Lys Arg Pro
      450              455              460
Ala Leu Phe Ser Ser Ser Ala Lys Ala Asp Gly Gly Lys Glu Gln Leu
  465              470              475              480
Thr Tyr Glu Ser Gly Glu Asp Glu Glu Asp Glu Glu Glu Glu Glu
      485              490              495
Glu Glu Glu Asp Phe Lys Pro Ser Asp Gly Ser Glu Asn Glu Met Glu
      500              505              510
Thr Glu Ile Leu Asp Tyr Val
      515

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<210> 4465

<211> 1291

<212> DNA

<213> Homo sapiens

<400> 4465

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gggctggagc gccaggttcg ggccgagatc gagcacaaga aggaggagct gcggcagatg
60

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gtgggcgaac ggtaccgcga cctgatcgag gcgnccgaca ccatcggcca gatgcgccgt
120

```

```

ngcgccgtgg ggctagtgga cgccgtgaag gccaccgacc agtactgcgc ccgcctccgc
180

```


caggccggct cggccgcgcc ccggccaccg cgggcccagc agccacagca gccatcccaa
240
gagaagttct acagcatggc tgccagatca agctactctt agaaattccg gagaagatct
300
ggagctcgat ggaagcctct cagtgtctcc acgccacacn agctctacct gctctgctgc
360
cacctccaca gcctgctcca gctggattct tctagttccc gatacagtcc cgtcctctcc
420
cggtttcccta tactcatccg gcagggtggcg gccgccagcc acttccggtc aactattctg
480
catgaaagca agatgttgct caaatgccaa ggtgtgtctg accaagctgt ggccgaggcc
540
ctgtgctcta taatgctctt agaagagagt tctcctcgcc aagccctcac agacttcctg
600
ctggccagaa aggcaactat tcagaaactt ctcaaccagc cacaccatgg tgctggtatc
660
aaggctcaga tttgctcatt agtggagttg ctggccacca ctctgaagca agctcatgcc
720
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780
ttctctactc tggagaccat cacaggccag catcctgccg gaaagggcac tgggtgtcctg
840
caggaagaga tgaaactctg cagctgggtt aaacacctgc cagcatccat cgtcgagtcc
900
cagccaacac tccgaaccct tgcacatccc atcagtcagg aatacctgaa agacacgctg
960
cagaaatgga tccacatgtg taatgaagac attaaaaatg ggatcaccaa cctgctcatg
1020
tacgtgaaga gcatgaaggg tctcgcggga atccgggacg ccatgtggga gttacttacc
1080
agtgagtcca ccaatcacag ctgggatgtg ctatgtaccc gcnttctgga gaagccgctc
1140
ttgttctggg aagatatgat gcagcaactg ttccttgacc gattacagac tctgacaaaa
1200
gaaggctttg actccatctc cagtagtncc aaggagctct tggtttcang tttgcaggaa
1260
cttgaaagca gcaccagcaa ctcccacttc a
1291

<210> 4466
<211> 93
<212> PRT
<213> Homo sapiens

<400> 4466
Gly Leu Glu Arg Gln Val Arg Ala Glu Ile Glu His Lys Lys Glu Glu
1 5 10 15
Leu Arg Gln Met Val Gly Glu Arg Tyr Arg Asp Leu Ile Glu Ala Xaa
20 25 30
Asp Thr Ile Gly Gln Met Arg Arg Xaa Ala Val Gly Leu Val Asp Ala
35 40 45
Val Lys Ala Thr Asp Gln Tyr Cys Ala Arg Leu Arg Gln Ala Gly Ser
50 55 60
Ala Ala Pro Arg Pro Pro Arg Ala Gln Gln Pro Gln Gln Pro Ser Gln

65 70 75
Glu Lys Phe Tyr Ser Met Ala Ala Arg Ser Ser Tyr Ser
 85 90

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<210> 4467
<211> 1142
<212> DNA
<213> Homo sapiens
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<400> 4467
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tcccagctgg agtcccctgt ggtgttttgt cacaatgacc tgctctgcaa gaatatcatc
120
tatgacagca tcaaagggtca cgtgcgggttc attgactatg aatatgctgg ctacaactac
180
caagcttttg acattggcaa ccatttcaat gagtttgagc gcgtgaatga ggtggattac
240
tgctgtacc cggcgcgagg gaccagctg cagtggctgc actactacct gcaggcacia
300
aaggggatgg ccgtgacccc cagggaggtg caaaggctct acgtgcaagt caacaagttt
360
gcctggcgt ctcaacttct ctgggctctc tgggcccctca tccagaacca gtactccacc
420
atcgactttg atttcctcag gtacgcagtg atccgattca accagtactt caaggtgaag
480
cctcaagcgt cagccttgga gatgccaaag tgaccagcca ccccatccct cccctaccca
540
tctgtctggc cagacctgtt ctccagagct caattctgca ctctgggagc cacacccttg
600
gacaggggtg gagaggggac acatgggtgt ccaggggagaa ggctctgtcc ctgccgccag
660
acccagtggt ttgccactga agacctcatt ctctgtctg gaggggctga taggaccccc
720
ttccgggggt ccccttcacc ccaccaggct tgggaggaag tgctctgagc caggtcctga
780
accataacca cccctgggaa acacatcatt ccagcctca ggccctgctg gaattggggc
840
tgcttatat gtgtgtttac ccttcctgg cctgggggag gaggcgggga gggctccttt
900
ctacctccag tgccctgagc ctccagtcg tctccccctg catgccccat gtgggaggtg
960
ctgagctcca aaccagcatc acaccaactc tgacacatgg atgtacctat cttggtgatg
1020
ggtggggggc aagaattgag catgacatct tccccagcag ccacctctc tgagatccct
1080
caccttctcc aaaccagatc caatcaaacc tcagcccag gaaacatgct cccctcacgc
1140
gt
1142

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<210> 4468
<211> 170
<212> PRT
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<213> Homo sapiens

<400> 4468

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Xaa Asp Val Pro Lys Val Glu Val Leu Glu Arg Glu Leu Ala Trp Leu
 1           5           10          15
Lys Glu His Leu Ser Gln Leu Glu Ser Pro Val Val Phe Cys His Asn
          20           25           30
Asp Leu Leu Cys Lys Asn Ile Ile Tyr Asp Ser Ile Lys Gly His Val
          35           40           45
Arg Phe Ile Asp Tyr Glu Tyr Ala Gly Tyr Asn Tyr Gln Ala Phe Asp
          50           55           60
Ile Gly Asn His Phe Asn Glu Phe Ala Gly Val Asn Glu Val Asp Tyr
65           70           75           80
Cys Leu Tyr Pro Ala Arg Glu Thr Gln Leu Gln Trp Leu His Tyr Tyr
          85           90           95
Leu Gln Ala Gln Lys Gly Met Ala Val Thr Pro Arg Glu Val Gln Arg
          100          105          110
Leu Tyr Val Gln Val Asn Lys Phe Ala Leu Ala Ser His Phe Phe Trp
          115          120          125
Ala Leu Trp Ala Leu Ile Gln Asn Gln Tyr Ser Thr Ile Asp Phe Asp
          130          135          140
Phe Leu Arg Tyr Ala Val Ile Arg Phe Asn Gln Tyr Phe Lys Val Lys
145          150          155          160
Pro Gln Ala Ser Ala Leu Glu Met Pro Lys
          165          170

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<210> 4469

<211> 409

<212> DNA

<213> Homo sapiens

<400> 4469

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atctatgatg cacaacatgc caatttggct ggcacgctga gcggccatgc ctctgggtg
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ctgaacgttg cattctgtcc tgatgacact cactttgttt ccagatccca gtgttggtca
120
ggcctgggat ggccaagaca gttggaaagc aggagatgga caacttgaag gcattgcaca
180
gtgctttaga ggcctcctgc gagccttggt tttgaagctt taacaggcct ccctcccatc
240
tggaatatagg tagctgtgtc tgagactcct ggagaacaat taatatgagg gccaggcaga
300
tcacaatttc aggaaaatgg ctaccctgtg aggagagaaa gccaccaat gatgctgata
360
cctggccatt tcctgtaccg aggcattgng ttgggggggtc tgaagttag
409

```

<210> 4470

<211> 55

<212> PRT

<213> Homo sapiens

<400> 4470

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Ile Tyr Asp Ala Gln His Ala Asn Leu Ala Gly Thr Leu Ser Gly His

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	1			5					10					15	
Ala	Ser	Trp	Val	Leu	Asn	Val	Ala	Phe	Cys	Pro	Asp	Asp	Thr	His	Phe
			20					25					30		
Val	Ser	Arg	Ser	Gln	Cys	Trp	Ser	Gly	Leu	Gly	Trp	Pro	Arg	Gln	Leu
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Glu	Ser	Arg	Arg	Trp	Thr	Thr									
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<211> 1771
<212> DNA
<213> Homo sapiens
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180
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240
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1380
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1771

<210> 4472
<211> 160
<212> PRT
<213> Homo sapiens

<400> 4472
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Ala Pro Leu Pro Gly Leu Ser Ala Pro Gly Arg Leu Phe Asp Gln Arg
20 25 30
Phe Gly Glu Gly Leu Leu Glu Ala Glu Leu Ala Ala Leu Cys Pro Thr
35 40 45
Thr Leu Ala Pro Tyr Tyr Leu Arg Ala Pro Ser Val Ala Leu Pro Val
50 55 60
Ala Gln Val Pro Thr Asp Pro Gly His Phe Ser Val Leu Leu Asp Val
65 70 75 80
Lys His Phe Ser Pro Glu Glu Ile Ala Val Lys Val Val Gly Glu His
85 90 95
Val Glu Val His Ala Arg His Glu Glu Arg Pro Asp Glu His Gly Phe
100 105 110
Val Ala Arg Glu Phe His Arg Arg Tyr Arg Leu Pro Pro Gly Val Asp
115 120 125
Pro Ala Ala Val Thr Ser Ala Leu Ser Pro Glu Gly Val Leu Ser Ile
130 135 140
Gln Ala Ala Pro Ala Ser Ala Gln Ala Pro Pro Pro Ala Ala Ala Lys
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<210> 4473
<211> 1255
<212> DNA
<213> Homo sapiens

<400> 4473

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 180
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 240
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 420
 aaacagatga agtctataga tgcaggaccg gtggatgcct ggactttggc attctctccg
 480
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 540
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 660
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 1080
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<210> 4474

<211> 305

<212> PRT

<213> Homo sapiens

<400> 4474

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Asp	Ala	Ile	Trp	Ser	Val	Ala	Trp	Gly	Thr	Asn	Lys	Lys	Glu	Asn	Ser
			20					25					30		
Glu	Thr	Val	Val	Thr	Gly	Ser	Leu	Asp	Asp	Leu	Val	Lys	Val	Trp	Lys

35 40 45
 Trp Arg Asp Glu Arg Leu Asp Leu Gln Trp Ser Leu Glu Gly His Gln
 50 55 60
 Leu Gly Val Val Ser Val Asp Ile Ser His Thr Leu Pro Ile Ala Ala
 65 70 75 80
 Ser Ser Ser Leu Asp Ala His Ile Arg Leu Trp Asp Leu Glu Asn Gly
 85 90 95
 Lys Gln Met Lys Ser Ile Asp Ala Gly Pro Val Asp Ala Trp Thr Leu
 100 105 110
 Ala Phe Ser Pro Asp Ser Gln His Leu Ala Thr Gly Thr His Met Gly
 115 120 125
 Lys Val Asn Ile Phe Gly Val Glu Ser Gly Lys Lys Glu Tyr Ser Leu
 130 135 140
 Asp Thr Arg Gly Lys Phe Ile Leu Ser Ile Ala Tyr Ser Pro Asp Gly
 145 150 155 160
 Lys Tyr Leu Ala Ser Gly Ala Ile Asp Gly Ile Ile Asn Ile Phe Asp
 165 170 175
 Ile Ala Thr Gly Lys Leu Leu His Thr Leu Glu Gly His Ala Met Pro
 180 185 190
 Ile Arg Ser Leu Thr Phe Ser Pro Asp Ser Gln Leu Leu Val Thr Ala
 195 200 205
 Ser Asp Asp Gly Tyr Ile Lys Ile Tyr Asp Val Gln His Ala Asn Leu
 210 215 220
 Ala Gly Thr Leu Ser Gly His Ala Ser Trp Val Leu Asn Val Ala Phe
 225 230 235 240
 Cys Pro Asp Asp Thr His Phe Val Ser Ser Ser Ser Asp Lys Ser Val
 245 250 255
 Lys Val Trp Asp Val Gly Thr Arg Thr Cys Val His Thr Phe Phe Asp
 260 265 270
 His Gln Asp Gln Val Trp Gly Val Lys Tyr Asn Gly Asn Gly Ser Lys
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 Ile Val Ser Val Gly Asp Asp Gln Glu Ile His Ile Tyr Asp Cys Pro
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 Ile
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<210> 4475

<211> 475

<212> DNA

<213> Homo sapiens

<400> 4475

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 360

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<210> 4476
 <211> 106
 <212> PRT
 <213> Homo sapiens

<400> 4476
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 20 25 30
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 35 40 45
 Gly His Thr Glu Gly Ser Val Ala Leu His Gly Ser Pro Ala Ser Arg
 50 55 60
 Gln Thr Ser Gln Arg Trp Thr Val Cys Gln Gly Trp Asp Trp Asn Ser
 65 70 75 80
 Arg Arg Ser Leu Asp Thr Ser Gly Ile Arg Glu Thr Ser Leu Gly Arg
 85 90 95
 Tyr Pro Leu Pro Ser Ser Arg Val His Ala
 100 105

<210> 4477
 <211> 1153
 <212> DNA
 <213> Homo sapiens

<400> 4477
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 taggccaggg cagatgggat atgacgaatg gactgccagc tggatacaag gatgctcacc
 180
 aagcaccaag ttctcacaag ttattttatg tgactttgca ggaactgagg cattatatct
 240
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<210> 4478

<211> 118

<212> PRT

<213> Homo sapiens

<400> 4478

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		20						25					30		
Lys	Pro	Leu	Gly	Leu	Cys	Glu	Asn	Ala	Asp	Val	Leu	Asp	Arg	Arg	Leu
		35						40				45			
Trp	Glu	Gly	Asn	Met	Lys	Glu	Glu	Asn	Asn	Asn	Glu	Ser	Lys	Ser	Thr
	50					55					60				
Ser	Ile	Pro	Gly	His	Phe	Ile	His	Phe	Gln	Asp	Tyr	Cys	Ala	Pro	Ile
65				70					75					80	
Ser	Thr	Leu	Met	Val	Cys	Val	Asp	Thr	Ala	Gln	Gly	Cys	Ile	Ser	Leu
			85					90					95		
Arg	Cys	His	Thr	Phe	Pro	Leu	Val	Ser	Ser	Asp	Ile	Met	Pro	Gln	Phe
			100					105					110		
Leu	Gln	Ser	His	Ile	Lys										
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<210> 4479

<211> 2158

<212> DNA

<213> Homo sapiens

<400> 4479

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 180

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<210> 4480

<211> 308

<212> PRT

<213> Homo sapiens

<400> 4480

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Gly	Cys	Phe	Gly	Arg	Gly	Pro	Arg	Phe	Ser	Ala	Pro	Cys	Ser	Gly	Leu
			20					25					30		
Asp	Tyr	Gly	Glu	Pro	Glu	Arg	Gly	Gly	Gly	Pro	Arg	Ala	Ala	Gln	Gly
			35				40					45			
Glu	Met	Ser	Ser	Thr	Ser	Ser	Lys	Arg	Ala	Pro	Thr	Thr	Ala	Thr	Gln
	50					55				60					
Arg	Leu	Lys	Gln	Asp	Tyr	Leu	Arg	Ile	Lys	Lys	Asp	Pro	Val	Pro	Tyr
65				70					75					80	
Ile	Cys	Ala	Glu	Pro	Leu	Pro	Ser	Asn	Ile	Leu	Glu	Trp	His	Tyr	Val
			85					90						95	
Val	Arg	Gly	Pro	Glu	Met	Thr	Pro	Tyr	Glu	Gly	Gly	Tyr	Tyr	His	Gly
			100					105					110		
Lys	Leu	Ile	Phe	Pro	Arg	Glu	Phe	Pro	Phe	Lys	Pro	Pro	Ser	Ile	Tyr
		115				120						125			
Met	Ile	Thr	Pro	Asn	Gly	Arg	Phe	Lys	Cys	Asn	Thr	Arg	Leu	Cys	Leu
		130				135					140				
Ser	Ile	Thr	Asp	Phe	His	Pro	Asp	Thr	Trp	Asn	Pro	Ala	Trp	Ser	Val
145				150					155					160	
Ser	Thr	Ile	Leu	Thr	Gly	Leu	Leu	Ser	Phe	Met	Val	Glu	Lys	Gly	Pro
			165					170						175	
Thr	Leu	Gly	Ser	Ile	Glu	Thr	Ser	Asp	Phe	Thr	Lys	Arg	Gln	Leu	Ala
			180					185					190		
Val	Gln	Ser	Leu	Ala	Phe	Asn	Leu	Lys	Asp	Lys	Val	Phe	Cys	Glu	Leu
		195				200						205			
Phe	Pro	Glu	Val	Val	Glu	Glu	Ile	Lys	Gln	Lys	Gln	Lys	Ala	Gln	Asp
		210				215						220			
Glu	Leu	Ser	Ser	Arg	Pro	Gln	Thr	Leu	Pro	Leu	Pro	Asp	Val	Val	Pro
225				230					235					240	
Asp	Gly	Glu	Thr	His	Leu	Val	Gln	Asn	Gly	Ile	Gln	Leu	Leu	Asn	Gly
			245					250						255	
His	Ala	Pro	Gly	Ala	Val	Pro	Asn	Leu	Ala	Gly	Leu	Gln	Gln	Ala	Asn
		260						265					270		
Arg	His	His	Gly	Leu	Leu	Gly	Gly	Ala	Leu	Ala	Asn	Leu	Phe	Val	Ile

275 280 285
 Val Gly Phe Ala Ala Phe Ala Tyr Thr Val Lys Tyr Val Leu Arg Ser
 290 295 300
 Ile Ala Gln Glu
 305

<210> 4481
 <211> 320
 <212> DNA
 <213> Homo sapiens

<400> 4481
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 120
 acgtgggggag gggaccccgg gctgggcttc gtaggggctt caaggacccc tgacttctgg
 180
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 320

<210> 4482
 <211> 101
 <212> PRT
 <213> Homo sapiens

<400> 4482
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 Trp Gly Leu Gly Thr Ser Cys Cys Ala Ala Arg Lys Gln Asp Ser Ala
 20 25 30
 Cys Pro Pro Thr Trp Gly Gly Asp Pro Gly Leu Gly Phe Val Gly Ala
 35 40 45
 Ser Arg Thr Pro Asp Phe Trp Gly Val Pro Asp Ser Arg Gly Gly Pro
 50 55 60
 Arg Ala Gly Leu Gly His Val Gln Ser Leu Ile Asp Leu Cys Pro Phe
 65 70 75 80
 Leu Pro Leu Pro Leu Cys Ala Ser Leu Asp Ser Pro Arg Glu Phe Ser
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 Arg Met Gly Thr Gln
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<210> 4483
 <211> 1852
 <212> DNA
 <213> Homo sapiens

<400> 4483
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<210> 4484

<211> 452

<212> PRT

<213> Homo sapiens

<400> 4484

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			100					105					110		
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		260					265						270		
Leu	Asn	Leu	Ala	Pro	Tyr	Asp	Ala	Cys	Trp	Asn	Ala	Cys	Arg	Gly	Asp
	275					280						285			
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305				310					315					320	
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          325          330          335
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Gly Val Asp Ser Leu Ile Gly Pro Glu Thr Gln Ile Gly Glu Lys Ser
          355          360          365
Ser Ile Lys Arg Ser Val Ile Gly Ser Ser Cys Leu Ile Lys Asp Arg
          370          375          380
Val Thr Ile Thr Asn Cys Leu Leu Met Asn Ser Val Thr Val Glu Glu
385          390          395          400
Gly Ser Asn Ile Gln Gly Ser Val Ile Cys Asn Asn Ala Val Ile Glu
          405          410          415
Lys Gly Ala Asp Ile Lys Asp Cys Leu Ile Gly Ser Gly Gln Arg Ile
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<210> 4485
 <211> 513
 <212> DNA
 <213> Homo sapiens

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360
gaaaaccccc aaatgtagag tatgtgacac agcaciaaagc agtcccatgc caaactgatg
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<210> 4486
 <211> 100
 <212> PRT
 <213> Homo sapiens

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<400> 4486
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20          25          30
Ser Ile Ser Leu Pro Ser Gly Ala Pro Gly Gly Gln Gly Asp Leu Leu

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      35      40      45
Pro Gln Ala Val Pro His Leu Ile Pro Lys Val Ser Ser Asn Glu Val
      50      55      60
Asp Ser Phe Lys Tyr Trp Trp Phe Trp Leu Ala Arg Val Ser Glu Gly
65      70      75      80
Thr Glu Lys Thr Pro Lys Cys Arg Val Cys Asp Thr Ala Gln Ser Ser
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<210> 4487

<211> 387

<212> DNA

<213> Homo sapiens

<400> 4487

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120
ggaaagtttg atattttatt caatagagtt caagcaattc agaagaaaag tggaaacttt
180
gatctgctgt tgtgtgtagg aaatttcttt ggctccaccc aagatgctga atgggaggag
240
tataagactg gcatcaagaa agctcctatt cagacatatg tgcttggtgc taataaccag
300
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<210> 4488

<211> 129

<212> PRT

<213> Homo sapiens

<400> 4488

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Gln Ser Gln Pro Ile Leu Phe Gly Gln Met Ala Gln Lys Pro Leu Arg
20      25      30
Leu Leu Ala Cys Gly Asp Val Glu Gly Lys Phe Asp Ile Leu Phe Asn
35      40      45
Arg Val Gln Ala Ile Gln Lys Lys Ser Gly Asn Phe Asp Leu Leu Leu
50      55      60
Cys Val Gly Asn Phe Phe Gly Ser Thr Gln Asp Ala Glu Trp Glu Glu
65      70      75      80
Tyr Lys Thr Gly Ile Lys Lys Ala Pro Ile Gln Thr Tyr Val Leu Gly
85      90      95
Ala Asn Asn Gln Glu Thr Val Lys Tyr Phe Gln Asp Ala Asp Gly Cys
100      105      110
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115      120      125
Gly

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<210> 4489

<211> 2390

<212> DNA

<213> Homo sapiens

<400> 4489

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120
gagccaggtg cctatatctt tctccagaac cccccaggtc tgcctagcat tgctgtctgc
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240
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300
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<210> 4490

<211> 383

<212> PRT

<213> Homo sapiens

<400> 4490

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			20					25					30		
Leu	Leu	Trp	Lys	Leu	Met	Trp	Arg	Glu	Pro	Gly	Ala	Tyr	Ile	Phe	Leu
		35				40					45				
Gln	Asn	Pro	Pro	Gly	Leu	Pro	Ser	Ile	Ala	Val	Cys	Trp	Phe	Val	Gly
	50				55					60					
Cys	Leu	Cys	Gly	Ser	Lys	Leu	Val	Ile	Asp	Trp	His	Asn	Tyr	Gly	Tyr
65				70				75						80	
Ser	Ile	Met	Gly	Leu	Val	His	Gly	Pro	Asn	His	Pro	Leu	Val	Leu	Leu
			85				90					95			
Ala	Lys	Trp	Tyr	Glu	Lys	Phe	Phe	Gly	Arg	Leu	Ser	His	Leu	Asn	Leu

			100					105					110			
Cys	Val	Thr	Asn	Ala	Met	Arg	Glu	Asp	Leu	Ala	Asp	Asn	Trp	His	Ile	
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Arg	Ala	Val	Thr	Val	Tyr	Asp	Lys	Pro	Ala	Ser	Phe	Phe	Lys	Glu	Thr	
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Pro	Leu	Asp	Leu	Gln	His	Arg	Leu	Phe	Met	Lys	Leu	Gly	Ser	Met	His	
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Ser	Ala	Phe	Thr	Glu	Arg	Asp	Ala	Gly	Ser	Gly	Leu	Val	Thr	Arg	Leu	
		180					185						190			
Arg	Glu	Arg	Pro	Ala	Leu	Leu	Val	Ser	Ser	Thr	Ser	Trp	Thr	Glu	Asp	
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Glu	Asp	Phe	Ser	Ile	Leu	Leu	Ala	Ala	Leu	Glu	Lys	Phe	Glu	Gln	Leu	
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Thr	Leu	Asp	Gly	His	Asn	Leu	Pro	Ser	Leu	Val	Cys	Val	Ile	Thr	Gly	
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Lys	Gly	Pro	Leu	Arg	Glu	Tyr	Tyr	Ser	Arg	Leu	Ile	His	Gln	Lys	His	
				245					250					255		
Phe	Gln	His	Ile	Gln	Val	Cys	Thr	Pro	Trp	Leu	Glu	Ala	Glu	Asp	Tyr	
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Pro	Leu	Leu	Leu	Gly	Ser	Ala	Asp	Leu	Gly	Val	Cys	Leu	His	Thr	Ser	
	275						280					285				
Ser	Ser	Gly	Leu	Asp	Leu	Pro	Met	Lys	Val	Val	Asp	Met	Phe	Gly	Cys	
	290					295					300					
Cys	Leu	Pro	Val	Cys	Ala	Val	Asn	Phe	Lys	Cys	Leu	His	Glu	Leu	Val	
305					310					315					320	
Lys	His	Glu	Glu	Asn	Gly	Leu	Val	Phe	Glu	Asp	Ser	Glu	Glu	Leu	Ala	
				325					330					335		
Ala	Gln	Leu	Gln	Met	Leu	Phe	Ser	Asn	Phe	Pro	Asp	Pro	Ala	Gly	Lys	
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Leu	Asn	Gln	Phe	Arg	Lys	Asn	Leu	Arg	Glu	Ser	Gln	Gln	Leu	Arg	Trp	
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<212> DNA
<213> Homo sapiens
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<213> Homo sapiens

<400> 4494

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<211> 840
<212> DNA
<213> Homo sapiens
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<400> 4497					
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240					
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300					
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420					
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480					
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540					
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660					
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720					
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<210> 4498
<211> 280
<212> PRT
<213> Homo sapiens
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Pro Lys Ala Ser Thr Thr Ser Asp Gly Asp Glu Ser Pro Pro Ser Ser
          35          40          45
Pro Gly Asn Pro Val Gln Gly Gln Cys Gly Glu Glu Glu Asp Ser Leu

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 Gly Arg Gly Leu Ala Leu Gln Lys Met Gly Gln Glu Glu Glu Ser Pro
 100 105 110
 Pro Arg Glu Glu Arg Pro Gln Gln Ser Pro Lys Ala Ser Pro Gly Leu
 115 120 125
 Leu Ala Ala Ala Leu Gln Gln Ser Gln Glu Leu Ala Lys Leu Gly Thr
 130 135 140
 Ser Phe Ala Gln Asn Gly Phe Tyr His Glu Ala Val Val Leu Phe Thr
 145 150 155 160
 Gln Ala Leu Lys Leu Asn Pro Gln Asp His Arg Leu Phe Gly Asn Arg
 165 170 175
 Ser Phe Cys His Glu Arg Leu Gly Gln Pro Ala Trp Ala Leu Ala Asp
 180 185 190
 Ala Gln Val Ala Leu Thr Leu Arg Pro Gly Trp Pro Arg Gly Leu Phe
 195 200 205
 Arg Leu Gly Lys Ala Leu Met Gly Leu Gln Arg Phe Arg Glu Ala Ala
 210 215 220
 Ala Val Phe Gln Glu Thr Leu Arg Gly Gly Ser Gln Pro Asp Ala Ala
 225 230 235 240
 Arg Glu Leu Arg Ser Cys Leu Leu His Leu Thr Leu Gln Gly Gln Arg
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 Gly Gly Ile Cys Ala Pro Pro Leu Ser Pro Gly Ala Leu Gln Pro Leu
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 Pro His Ala Glu Leu Ala Pro Ser
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<210> 4499

<211> 562

<212> DNA

<213> Homo sapiens

<400> 4499

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<210> 4500

<211> 91

<212> PRT

<213> Homo sapiens

<400> 4500

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			20					25					30		
His	Gly	Leu	Ser	Pro	Leu	Asn	Val	Ile	Ala	Glu	Asp	Gly	Thr	Met	Thr
		35					40					45			
Ser	Leu	Cys	Gly	Asp	Trp	Leu	Gln	Gly	Leu	His	Arg	Phe	Val	Ala	Arg
	50					55					60				
Glu	Lys	Ile	Met	Ser	Val	Leu	Ser	Glu	Arg	Gly	Leu	Phe	Arg	Gly	Leu
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<210> 4501

<211> 1866

<212> DNA

<213> Homo sapiens

<400> 4501

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<210> 4502

<211> 267

<212> PRT

<213> Homo sapiens

<400> 4502

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			20					25					30		
Phe	Asp	Glu	Thr	Ile	Val	Asp	Glu	Asn	Ser	Asp	Asp	Ser	Ile	Val	Arg
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Ala	Ala	Pro	Gly	Gln	Arg	Leu	Pro	Glu	Ser	Leu	Arg	Ala	Thr	Tyr	Arg
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			85						90					95	
Pro	Leu	Ser	Pro	Gly	Met	Ser	Asp	Leu	Leu	Gln	Phe	Val	Ala	Lys	Gln
			100					105					110		
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		115					120					125			
Val	Glu	Ser	Ser	Leu	Arg	Ala	Ala	Gly	His	His	Ser	Leu	Phe	Arg	Arg
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			165					170					175		
Lys	His	Lys	Val	Leu	Ser	Asp	Tyr	Leu	Arg	Glu	Arg	Ala	His	Asp	Gly
			180					185					190		
Val	His	Phe	Glu	Arg	Leu	Phe	Tyr	Val	Gly	Asp	Gly	Ala	Asn	Asp	Phe
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Cys	Pro	Met	Gly	Leu	Leu	Ala	Gly	Gly	Asp	Val	Ala	Phe	Pro	Arg	Arg
	210					215					220				
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Ser	Ser	Phe	Arg	Ala	Ser	Val	Val	Pro	Trp	Glu	Thr	Ala	Ala	Asp	Val
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<210> 4503

<211> 1983

<212> DNA

<213> Homo sapiens

<400> 4503

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660

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1980
gtg
1983

<210> 4504

<211> 250

<212> PRT

<213> Homo sapiens

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 35 40 45
 Lys Lys Ile Ile Glu Thr Lys Met Leu Met Gly Glu Val Met Arg Glu
 50 55 60
 Ala Ala Phe Ser Leu Ala Glu Ala Lys Phe Thr Ala Gly Asp Phe Ser
 65 70 75 80
 Thr Thr Val Ile Gln Asn Val Asn Lys Ala Gln Val Lys Ile Arg Ala
 85 90 95
 Lys Lys Asp Asn Val Ala Gly Val Thr Leu Pro Val Phe Glu His Tyr
 100 105 110
 His Glu Gly Thr Asp Ser Tyr Glu Leu Thr Gly Leu Ala Arg Gly Gly
 115 120 125
 Glu Gln Leu Ala Lys Leu Lys Arg Asn Tyr Ala Lys Ala Val Glu Leu
 130 135 140
 Leu Val Glu Leu Ala Ser Leu Gln Thr Ser Phe Val Thr Leu Asp Glu
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 Ala Ile Lys Ile Thr Asn Arg Arg Val Asn Ala Ile Glu His Gly Glu
 165 170 175
 Tyr Val Ile Ile Pro Arg Ile Glu Arg Thr Leu Ala Tyr Ile Ile Thr
 180 185 190
 Glu Leu Asp Glu Arg Glu Arg Glu Glu Phe Tyr Arg Leu Lys Lys Ile
 195 200 205
 Gln Glu Lys Lys Lys Ile Leu Lys Glu Lys Ser Glu Lys Asp Leu Glu
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<210> 4505

<211> 379

<212> DNA

<213> Homo sapiens

<400> 4505

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<210> 4506

<211> 121

<212> PRT

<213> Homo sapiens

<400> 4506

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 20           25           30
Arg Arg Gln Trp Trp Leu Trp Leu Ser Ser Leu Ser Asn Gln Ile His
 35           40           45
Pro Thr Pro Ser Ala Gln Gly Gln Ala Ala Leu Arg Gln Thr Cys Pro
 50           55           60
His Leu Arg Glu Ser Gly Pro Leu Ser Val Arg His Val Ala Leu Leu
 65           70           75           80
Ala Leu Glu Thr Ala Ser His Pro Ser Gly Pro His Thr Asn Gln Ala
 85           90           95
Pro Ser Pro Ala Thr Ser Pro Lys Cys Pro Ser Glu Pro Ala Thr Pro
100           105           110
Ser Ser Thr Asp Ser Leu Ile Lys Ile
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<210> 4507

<211> 3664

<212> DNA

<213> Homo sapiens

<400> 4507

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<211> 3266

<212> PRT

<213> Homo sapiens

<400> 4510

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Ala	Thr	Arg	Thr	Leu	Phe	Ile	Gly	Asn	Leu	Glu	Lys	Thr	Thr	Thr	Tyr
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His	Asp	Leu	Arg	Asn	Ile	Phe	Gln	Arg	Phe	Gly	Glu	Ile	Val	Asp	Ile
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Asp	Ile	Lys	Lys	Val	Asn	Gly	Val	Pro	Gln	Tyr	Ala	Phe	Leu	Gln	Tyr

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Tyr	Leu	Gly	Asn	Asn	Arg	Leu	Lys	Leu	Gly	Phe	Gly	Lys	Ser	Met	Pro
			100					105					110		
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Tyr	Ala	Gln	Ala	Ala	Val	Lys	Glu	Thr	Lys	Gly	Arg	Lys	Ile	Gly	Gly
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Glu	Asp	Ser	Arg	Arg	Asp	Tyr	Pro	Ala	Arg	Gly	Arg	Glu	Phe	Tyr	Ser
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		260					265						270		
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Ile	Arg	Glu	Tyr	Ser	Tyr	Arg	Gln	Arg	Glu	Arg	Glu	Arg	Glu	Arg	Glu
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Lys	Glu	Lys	Glu	Gly	Lys	Val	Ile	Asp	His	Thr	Pro	Val	Glu	Lys	Leu
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Ser Asp Ser Asp Glu Asp Gly Glu His Lys Ser His Ser Pro Arg Ala
980 985 990
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995 1000 1005
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Arg Asn Lys Phe Tyr Ser Phe Ala Leu Asp Lys Thr Ile Thr Pro Asp
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Thr Lys Ala Leu Leu Glu Arg Ala Lys Ser Leu Ser Ser Ser Arg Glu
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Gly Glu Ala Gln Lys Leu Leu Glu Leu Lys Met Glu Ala Glu Lys Ile
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Gln Leu Ala Lys Gln Met Glu Leu Glu Gln Ala Val Glu His Ile Ala
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Lys Leu Ala Glu Ala Ser Ala Ser Ala Ala Tyr Lys Ala Asp Ala Pro
1780 1785 1790
Glu Gly Leu Ala Pro Glu Asp Arg Asp Lys Pro Ala His Gln Ala Ser

1795 1800 1805
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Gly Glu Pro Glu Asn Phe Pro Ala Pro Pro Tyr Pro Gly Glu Ser
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Gln Thr Asp Leu Gln Pro Pro Ala Gly Ala Gln Ala Leu Gln Pro Ser
1845 1850 1855
Glu Glu Gly Met Glu Thr Asp Glu Ala Val Ser Gly Ile Leu Glu Thr
1860 1865 1870
Glu Ala Ala Thr Glu Ser Ser Arg Pro Pro Val Asn Ala Pro Asp Pro
1875 1880 1885
Ser Ala Gly Pro Thr Asp Thr Lys Glu Ala Arg Gly Asn Ser Ser Glu
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Thr Ser His Ser Val Pro Glu Ala Lys Gly Ser Lys Glu Val Glu Val
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Val Pro Glu Ser Asn Gln Ala Gln Gly Glu Ser Pro Ala Ala Asn Glu
1955 1960 1965
Gly Thr Thr Val Gln His Pro Glu Ala Pro Gln Glu Glu Lys Gln Ser
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Glu Lys Pro His Ser Thr Pro Pro Gln Ser Cys Thr Ser Asp Leu Ser
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Lys Ile Pro Ser Thr Glu Asn Ser Ser Gln Glu Ile Ser Val Glu Glu
2005 2010 2015
Arg Thr Pro Thr Lys Ala Ser Val Pro Pro Asp Leu Pro Pro Pro Pro
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Gln Pro Ala Pro Val Asp Glu Glu Pro Gln Ala Arg Phe Arg Val His
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Pro Ile Pro Thr Leu Pro Ser Val Thr Ala Ala Lys Leu Ser Pro Pro
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Pro Ala Leu Pro Pro Asp Thr Lys Ala Ser Asp Val Asp Thr Ser Ser
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2165 2170 2175
Lys Pro Leu Glu Glu Lys Thr Ala Pro Pro Val Thr Asn Asn Ser Glu
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Ile Gln Ala Ser Glu Val Leu Val Ala Ala Asp Lys Glu Lys Val Ala
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Pro Val Ile Ala Pro Lys Ile Thr Ser Val Ile Ser Arg Met Pro Val
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Val Thr Thr Leu Lys Ser Leu Val Ser Thr Pro Ala Gly Pro Val Asn
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Val Leu Lys Gly Pro Val Asn Val Leu Thr Gly Pro Val Asn Val Leu
 2290 2295 2300
Thr Thr Pro Val Asn Ala Thr Val Gly Thr Val Asn Ala Ala Pro Gly
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2370 2375 2380
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Ser Lys Gly Pro Gln Ala Pro Ala Gly Tyr Ala Asn Val Ala Thr His
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Ser Thr Leu Val Leu Thr Ala Gln Thr Tyr Asn Ala Ser Pro Val Ile
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Ser Ser Val Lys Ala Asp Arg Pro Ser Leu Glu Lys Pro Glu Pro Ile
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Thr	Ala	Val	Ser	Glu	Gln	Pro	Arg	Ala	Ala	Asp	Gly	Val	Val	Lys	Val		
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Pro	Pro	Ala	Gln	Leu	Thr	His	Thr	Gln	Phe	Pro	Ala	Ala	Ser	Ser	Val		
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	3140	3145
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Ala Ser Val Glu Thr Asp Tyr Cys Leu Leu Leu Ala Leu Pro Cys Gly		3165
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Arg Asp Gln Glu Asp Val Val Ser Gln Thr Glu Ser Leu Lys Ala Ala		3180
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Phe Ile Thr Tyr Leu Gln Ala Lys Gln Ala Ala Gly Ile Ile Asn Val		3200
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Pro Cys Glu Phe Ser Glu Ser His Leu Ser Arg Leu Ala Pro Asp Leu		3230
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<211> 1375

<212> DNA

<213> Homo sapiens

<400> 4511

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<213> Homo sapiens

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Arg	Glu	Glu	Glu	Glu	Lys	Glu	Ser	Asp	Ser	Asp	Ser	Glu	Gly	Pro	Ile
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Arg	Arg	Leu	Ser	Gln	Arg	Pro	Thr	Pro	Glu	Glu	Leu	Glu	Gln	Arg	Asn
	130					135					140				
Ile	Leu	Gln	Pro	Lys	Asn	Glu	Ala	Asp	Arg	Gln	Ala	Glu	Lys	Arg	Glu
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<212> PRT

<213> Homo sapiens

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Pro	Pro	Gly	Val	Ala	Ala	Leu	Leu	Ala	Phe	Pro	Glu	Ala	Arg	Pro	Glu
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Thr Val Gly Ser Trp Arg Tyr Gly Gln Leu Asp Leu Glu Pro Gly Gly					
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2040

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 2100
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<210> 4520

<211> 617

<212> PRT

<213> Homo sapiens

<400> 4520

Pro	Trp	Gly	Arg	Cys	Met	Gly	Asp	Glu	Cys	Gly	Pro	Gly	Gly	Ile	Gln
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			20					25					30		
Thr	Asn	Cys	Lys	Gln	Ala	Glu	Arg	Pro	Asn	Asn	Gln	Gln	Asn	Cys	Phe
		35					40				45				
Lys	Val	Cys	Asp	Trp	His	Lys	Glu	Leu	Tyr	Asp	Trp	Arg	Leu	Gly	Pro
	50					55				60					
Trp	Asn	Gln	Cys	Gln	Pro	Val	Ile	Ser	Lys	Ser	Leu	Glu	Lys	Pro	Leu
65					70					75					80
Glu	Cys	Ile	Lys	Gly	Glu	Glu	Gly	Ile	Gln	Val	Arg	Glu	Ile	Ala	Cys
			85						90					95	
Ile	Gln	Lys	Asp	Lys	Asp	Ile	Pro	Ala	Glu	Asp	Ile	Ile	Cys	Glu	Tyr
		100						105					110		
Phe	Glu	Pro	Lys	Pro	Leu	Leu	Glu	Gln	Ala	Cys	Leu	Ile	Pro	Cys	Gln
	115						120					125			
Gln	Asp	Cys	Ile	Val	Ser	Glu	Phe	Ser	Ala	Trp	Ser	Glu	Cys	Ser	Lys
	130					135					140				
Thr	Cys	Gly	Ser	Gly	Leu	Gln	His	Arg	Thr	Arg	His	Val	Val	Ala	Pro
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Pro	Gln	Phe	Gly	Gly	Ser	Gly	Cys	Pro	Asn	Leu	Thr	Glu	Phe	Gln	Val
			165						170					175	
Cys	Gln	Ser	Ser	Pro	Cys	Glu	Ala	Glu	Glu	Leu	Arg	Tyr	Ser	Leu	His
		180						185					190		
Val	Gly	Pro	Trp	Ser	Thr	Cys	Ser	Met	Pro	His	Ser	Arg	Gln	Val	Arg
	195						200					205			
Gln	Ala	Arg	Arg	Arg	Gly	Lys	Asn	Lys	Glu	Arg	Glu	Lys	Asp	Arg	Ser
	210					215					220				
Lys	Gly	Val	Lys	Asp	Pro	Glu	Ala	Arg	Glu	Leu	Ile	Lys	Lys	Lys	Arg
225					230					235					240
Asn	Arg	Asn	Arg	Gln	Asn	Arg	Gln	Glu	Asn	Lys	Tyr	Trp	Asp	Ile	Gln
			245						250					255	
Ile	Gly	Tyr	Gln	Thr	Arg	Glu	Val	Met	Cys	Ile	Asn	Lys	Thr	Gly	Lys
		260					265						270		
Ala	Ala	Asp	Leu	Ser	Phe	Cys	Gln	Gln	Glu	Lys	Leu	Pro	Met	Thr	Phe
	275						280					285			
Gln	Ser	Cys	Val	Ile	Thr	Lys	Glu	Cys	Gln	Val	Ser	Glu	Trp	Ser	Glu

290		295		300
Trp Ser Pro Cys Ser Lys Thr Cys His Asp Met Val Ser Pro Ala Gly				
305		310		315
Thr Arg Val Arg Thr Arg Thr Ile Arg Gln Phe Pro Ile Gly Ser Glu				
		325		330
Lys Glu Cys Pro Glu Phe Glu Glu Lys Glu Pro Cys Leu Ser Gln Gly				
		340		345
Asp Gly Val Val Pro Cys Ala Thr Tyr Gly Trp Arg Thr Thr Glu Trp				
		355		360
Thr Glu Cys Arg Val Asp Pro Leu Leu Ser Gln Gln Asp Lys Arg Arg				
		370		375
Gly Asn Gln Thr Ala Leu Cys Gly Gly Gly Ile Gln Thr Arg Glu Val				
385		390		395
Tyr Cys Val Gln Ala Asn Glu Asn Leu Leu Ser Gln Leu Ser Thr His				
		405		410
Lys Asn Lys Glu Ala Ser Lys Pro Met Asp Leu Lys Leu Cys Thr Gly				
		420		425
Pro Ile Pro Asn Thr Thr Gln Leu Cys His Ile Pro Cys Pro Thr Glu				
		435		440
Cys Glu Val Ser Pro Trp Ser Ala Trp Gly Pro Cys Thr Tyr Glu Asn				
		450		455
Cys Asn Asp Pro Gln Gly Lys Lys Gly Phe Lys Leu Arg Lys Arg Arg				
465		470		475
Ile Thr Asn Glu Pro Thr Gly Gly Ser Gly Leu Thr Gly Asn Cys Pro				
		485		490
His Leu Leu Glu Ala Ile Pro Cys Glu Glu Pro Ala Cys Tyr Asp Trp				
		500		505
Lys Ala Val Arg Leu Gly Asp Cys Glu Pro Asp Asn Gly Lys Glu Cys				
		515		520
Gly Pro Gly Thr Gln Val Gln Glu Val Val Cys Ile Asn Ser Asp Gly				
		530		535
Glu Glu Val Asp Arg Gln Leu Cys Arg Asp Ala Ile Phe Pro Ile Pro				
545		550		555
Val Ala Cys Asp Ala Pro Cys Pro Lys Asp Cys Val Leu Ser Thr Trp				
		565		570
Ser Thr Trp Ser Ser Cys Ser His Thr Cys Ser Gly Lys Thr Thr Glu				
		580		585
Gly Lys Gln Ile Arg Ala Arg Ser Ile Leu Ala Tyr Ala Gly Glu Glu				
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Gly Glu Ser Pro Ala Ser Asp Ala Ile				
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<210> 4521

<211> 1071

<212> DNA

<213> Homo sapiens

<400> 4521

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120

ttataccaat ataaacaatt actcaggaaa aaaagaaaat aaaaacttgc aagggctaaa
180

ataacttgct taccaccaa gatgcttgct ctaagaactg tgaagggatt caagaggaaa
 240
 agtacacca gagagggctc atacatgtcc tctccccctc ctcctccacc accaggacac
 300
 acagaaactg cctcctcttt tcagccctct cccttctcag ctgactttga gctacaaata
 360
 tcccttctct acttggagag ccccatattca ttacaggaat ttgctttgag ttttattatc
 420
 attttagtct atgtcttaga ttgggctgct ataacaaggc gccataggct gagcggctta
 480
 aacaacaaac actcatatcc cacagttaca gaggctgaga agcctggggc caaggtacca
 540
 gcatggctctg attctgttct ggaggctggg aaatccaaga tggaagcact ggtaggtttg
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 gtgtctggga gggcttctct ctgcttccaa gatggtgcct tgctgctgca tcttccagag
 660
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 720
 aaagttgaaa ataaagagat ggaatatata tatgaaaact actacatata ggaagggatg
 780
 tagcaaagac acagagagaa tataatttaa ggcaaaaagc ttcaatagga tttcaaagca
 840
 aaccttgcac actaaaaaaa ggaaacccaa aataaaccaa aagaaaccga aaaccatgaa
 900
 cttgcaggag aattttccaa agccgtaatt ataatgagag tgtttttaag tctataagaa
 960
 attaatatat caaacaata aagattaata agaatttgga atttgtatga aatggcaaag
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 1071

<210> 4522

<211> 189

<212> PRT

<213> Homo sapiens

<400> 4522

Met	Leu	Ala	Leu	Arg	Thr	Val	Lys	Gly	Phe	Lys	Arg	Lys	Ser	Thr	Pro
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Arg	Glu	Gly	Ser	Tyr	Met	Ser	Ser	Pro	Pro	Pro	Pro	Pro	Pro	Pro	Gly
			20					25					30		
His	Thr	Glu	Thr	Ala	Ser	Ser	Phe	Gln	Pro	Ser	Pro	Phe	Ser	Ala	Asp
			35				40					45			
Phe	Glu	Leu	Gln	Ile	Ser	Leu	Leu	Tyr	Leu	Glu	Ser	Pro	Ile	Ser	Leu
			50			55					60				
Gln	Glu	Phe	Ala	Leu	Ser	Phe	Ile	Ile	Ile	Leu	Val	Tyr	Val	Leu	Asp
65				70						75				80	
Trp	Ala	Ala	Ile	Thr	Arg	Cys	His	Arg	Leu	Ser	Gly	Leu	Asn	Asn	Lys
				85				90					95		
His	Ser	Tyr	Pro	Thr	Val	Thr	Glu	Ala	Glu	Lys	Pro	Gly	Val	Lys	Val
			100					105					110		
Pro	Ala	Trp	Ser	Asp	Ser	Val	Leu	Glu	Ala	Gly	Lys	Ser	Lys	Met	Glu
			115				120					125			
Ala	Leu	Val	Gly	Leu	Val	Ser	Gly	Arg	Ala	Ser	Leu	Cys	Phe	Gln	Asp

130	135	140
Gly Ala Leu Ser Leu His Leu Pro Glu Gly Arg Asn Ala Val Ser Leu		
145	150	155
Gln His Arg Arg Asn Thr Ser Glu Lys Lys Ser Ser Arg Lys Val Glu		160
	165	170
Asn Lys Glu Met Glu Tyr Ile Tyr Glu Asn Tyr Tyr Ile		175
180	185	

<210> 4523
 <211> 1022
 <212> DNA
 <213> Homo sapiens

<400> 4523
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 180
 aggcacccat tcctcggcga tctgaggaag ctcatcacag atgactttgt gaagcagaag
 240
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 360
 aaccgagacc cccgggaatg gaaggctcat ttcttggagg ctgtggatga tgctttcaag
 420
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 480
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 540
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 600
 gccagatacc atcagtacat tctgaatagc aaccgtgcca acaggagggc cacgtggaga
 660
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 720
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 780
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 840
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 900
 aggtggcatg caagatgaag ctctctttgc tcttctgct ttcattttgt gcttttcctt
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 1020
 aa
 1022

<210> 4524
 <211> 262
 <212> PRT

<213> Homo sapiens

<400> 4524

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 Gly Lys Thr Lys Asp Thr Pro Arg Leu Ser Leu Xaa Leu Val Ile Leu
 20 25 30
 Gly Val Ile Phe Met Asn Gly Asn Arg Ala Ser Glu Ala Val Leu Trp
 35 40 45
 Glu Ala Leu Arg Lys Met Gly Leu Arg Pro Gly Val Arg His Pro Phe
 50 55 60
 Leu Gly Asp Leu Arg Lys Leu Ile Thr Asp Asp Phe Val Lys Gln Lys
 65 70 75 80
 Tyr Leu Glu Tyr Lys Lys Ile Pro Asn Ser Asn Pro Pro Glu Tyr Glu
 85 90 95
 Phe Leu Trp Gly Leu Arg Ala Arg His Glu Thr Ser Lys Met Arg Val
 100 105 110
 Leu Arg Phe Ile Ala Gln Asn Gln Asn Arg Asp Pro Arg Glu Trp Lys
 115 120 125
 Ala His Phe Leu Glu Ala Val Asp Asp Ala Phe Lys Thr Met Asp Val
 130 135 140
 Asp Met Ala Glu Glu His Ala Arg Ala Gln Met Arg Ala Gln Met Asn
 145 150 155 160
 Ile Gly Asp Glu Ala Leu Ile Gly Arg Trp Ser Trp Asp Asp Ile Gln
 165 170 175
 Val Glu Leu Leu Thr Trp Asp Glu Asp Gly Asp Phe Gly Asp Ala Trp
 180 185 190
 Ala Arg Ile Pro Phe Ala Phe Trp Ala Arg Tyr His Gln Tyr Ile Leu
 195 200 205
 Asn Ser Asn Arg Ala Asn Arg Arg Ala Thr Trp Arg Ala Gly Val Ser
 210 215 220
 Ser Gly Thr Asn Gly Gly Ala Ser Thr Ser Val Leu Asp Gly Pro Ser
 225 230 235 240
 Thr Ser Ser Thr Ile Arg Thr Arg Asn Ala Ala Arg Ala Gly Ala Ser
 245 250 255
 Phe Phe Ser Trp Ile Gln
 260

<210> 4525

<211> 1731

<212> DNA

<213> Homo sapiens

<400> 4525

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 gagacagga gccaaagctag ctcaagcag cctgggcagc taatctcctt cagtgaggcc
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 240
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 300

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360
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420
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480
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540
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660
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1020
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1080
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1140
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1380
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1440
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1500
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1560
gccatgtcag gagcctggcc aggcgcacc cttgctgtc tcagcagatg ggatatagga
1620
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1731

<210> 4526

<211> 344

<212> PRT

<213> Homo sapiens

<400> 4526

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20 25 30
Glu Ala Val Asp Thr Ile Gln Pro Glu Thr Gly Ser Gln Ala Ser Ser
35 40 45
Glu Gln Pro Gly Gln Leu Ile Ser Phe Ser Glu Ala Leu Gln His Phe
50 55 60
Gln Thr Val Asp Leu Ser Pro Phe Lys Lys Arg Ile Gln Pro Thr Ile
65 70 75 80
Arg Arg Thr Gly Leu Ala Ala Leu Arg His Tyr Leu Phe Gly Pro Pro
85 90 95
Lys Leu His Gln Arg Leu Arg Glu Glu Arg Asp Leu Val Leu Thr Ile
100 105 110
Ala Gln Cys Gly Leu Asp Ser Gln Asp Pro Val His Gly Arg Val Leu
115 120 125
Gln Thr Ile Tyr Lys Lys Leu Thr Gly Ser Lys Phe Asp Cys Ala Leu
130 135 140
His Gly Asn His Trp Glu Asp Leu Gly Phe Gln Gly Ala Asn Pro Ala
145 150 155 160
Thr Asp Leu Arg Gly Ala Gly Phe Leu Ala Leu Leu His Leu Leu Tyr
165 170 175
Leu Val Met Asp Ser Lys Thr Leu Pro Met Ala Gln Glu Ile Phe Arg
180 185 190
Leu Ser Arg His His Ile Gln Gln Phe Pro Phe Cys Leu Met Ser Val
195 200 205
Asn Ile Thr His Ile Ala Ile Gln Ala Leu Arg Glu Glu Cys Leu Ser
210 215 220
Arg Glu Cys Asn Arg Gln Gln Lys Val Ile Pro Val Val Asn Ser Phe
225 230 235 240
Tyr Ala Ala Thr Phe Leu His Leu Ala His Val Trp Arg Thr Gln Arg
245 250 255
Lys Thr Ile Ser Asp Ser Gly Phe Val Leu Lys Gly Val Leu Phe Leu
260 265 270
Leu Gly Arg Pro Arg Leu Asn Ala Gln Cys Pro Arg Ser Arg Glu Pro
275 280 285
Lys Val Val Ala Arg Leu Val Leu Ala Ala Val Leu Pro His Pro His
290 295 300
Phe Leu Lys Phe Gln Leu Thr Lys Ile Ser Ile Thr His Pro Leu Glu
305 310 315 320
Ser Ala Ser Ser Pro Phe Ser Ala Leu Thr Val Ala Leu Phe Trp Ser
325 330 335
Tyr Thr Tyr Asp Lys His Ile Phe
340

<210> 4527

<211> 885

<212> DNA

<213> Homo sapiens

<400> 4527

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 120
 ctgcccaccc agccttggct ctgggctgcc atgtccccac gggggcagga gagaggcaca
 180
 agtcacagtc aggcaaggga gcctcagcgt cctgggcggt ggctgttggg gtccctccag
 240
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 300
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 360
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 420
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 480
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 540
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 600
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 660
 agcccaggat cacgtagaag gagcgcgta gcgccagacc cgacgcccc ggccgacgcg
 720
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 780
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 885

<210> 4528

<211> 206

<212> PRT

<213> Homo sapiens

<400> 4528

Xaa	Phe	Phe	Phe	Phe	Phe	Phe	Phe	Phe	Phe	Phe	Phe	Phe	Phe	Phe	Phe
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Cys	Arg	Asp	Met	Ala	Ala	Phe	Ile	Val	Pro	Ser	Pro	Ala	Arg	Arg	Cys
			20					25					30		
Ser	Gln	Lys	Gly	Ser	Leu	Gly	His	Leu	Pro	Thr	Gln	Pro	Trp	Leu	Trp
			35				40					45			
Ala	Ala	Met	Ser	Pro	Arg	Gly	Gln	Glu	Arg	Gly	Thr	Ser	His	Ser	Gln
			50				55				60				
Ala	Arg	Glu	Pro	Gln	Arg	Pro	Gly	Arg	Trp	Leu	Leu	Gly	Ser	Leu	Gln
65					70				75					80	
Ser	Ser	Pro	Gly	Thr	Leu	Gly	Gln	Ala	Gly	Thr	Ala	Ser	Arg	Arg	Arg
			85				90						95		
Gly	Cys	Met	Val	Gln	Arg	Trp	Val	Gln	Val	Ala	Thr	Gly	Arg	Arg	Ala
			100				105					110			
Val	Gln	Val	Pro	Lys	Gly	Ala	Leu	Gly	Leu	Ala	Leu	Gly	Glu	Thr	Ser
			115				120					125			
Pro	Gly	Ala	Ser	Arg	Gly	Met	Ser	Gly	Gly	Ala	Gly	Gly	Cys	Trp	Ala
			130			135				140					
Leu	Gly	Trp	Ala	Pro	Ser	Pro	Val	Leu	Pro	Ser	Trp	Leu	Leu	Glu	Gly

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145          150          155          160
Pro Pro Pro Trp Leu Ser Ile Ile Ser Asp Ser Gly Thr Gln Thr Pro
          165          170          175
Ser Pro Arg Arg Cys Pro Ala Arg Pro Ser Pro Trp Gly Pro Gln Cys
          180          185          190
Trp Arg Gly Gly Arg Ile Ala Ser Ala Glu Ala Ser Ser Thr
          195          200          205

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<210> 4529
 <211> 546
 <212> DNA
 <213> Homo sapiens

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<400> 4529
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120
aagatggagg agaaaccctc agggcccatc ccggacatgc tggccactgc agagcccagc
180
tccagtgaga ccgacaagga ggtgttgtcc ccggctgtgc cagctgcagc cccctcctcc
240
tccatgtcgg aggagccagg ccctgagcag gcagccacac cgccagtggg gaacgtggag
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360
gacccagccc tggcctgacc agcatagtct ccgggaccag cgaggacctg cggcctccca
420
gacgacgccc acctccaggg aagcaaatcc cttgctccag ccctggctgc tgcctcagtt
480
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540
agtctc
546

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<210> 4530
 <211> 84
 <212> PRT
 <213> Homo sapiens

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<400> 4530
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Glu Pro Ser Ser Ser Glu Thr Asp Lys Glu Val Leu Ser Pro Ala Val
          20          25          30
Pro Ala Ala Ala Pro Ser Ser Ser Met Ser Glu Glu Pro Gly Pro Glu
          35          40          45
Gln Ala Ala Thr Pro Pro Val Gly Asn Val Glu Gly Leu Glu Gly Cys
          50          55          60
Ser Arg Ala Pro Pro Gln Pro Gln Thr Ala Ala Ser Leu Ala Pro Asp
65          70          75          80
Pro Ala Leu Ala

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<210> 4531
<211> 1414
<212> DNA
<213> Homo sapiens

<400> 4531
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1260
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1320
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<210> 4532
 <211> 296
 <212> PRT
 <213> Homo sapiens

<400> 4532
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 Ser Lys Lys Pro Glu Arg Arg Pro Arg Gly Arg Arg Arg Gly Arg Lys
 35 40 45
 Cys Gly Arg Gly His Lys Gly Glu Arg Gln Arg Gly Thr Arg Pro Arg
 50 55 60
 Leu Gly Phe Glu Gly Gly Gln Thr Pro Phe Tyr Ile Arg Ile Pro Lys
 65 70 75 80
 Tyr Gly Phe Asn Glu Gly His Ser Phe Arg Arg Gln Tyr Lys Pro Leu
 85 90 95
 Ser Leu Asn Arg Leu Gln Tyr Leu Ile Asp Leu Gly Arg Val Asp Pro
 100 105 110
 Ser Gln Pro Ile Asp Leu Thr Gln Leu Val Asn Gly Arg Gly Val Thr
 115 120 125
 Ile Gln Pro Leu Lys Arg Asp Tyr Gly Val Gln Leu Val Glu Glu Gly
 130 135 140
 Ala Asp Thr Phe Thr Ala Lys Val Asn Ile Glu Val Gln Leu Ala Ser
 145 150 155 160
 Glu Leu Ala Ile Ala Ala Ile Glu Lys Asn Gly Gly Val Val Thr Thr
 165 170 175
 Ala Phe Tyr Asp Pro Arg Ser Leu Asp Ile Val Cys Lys Pro Val Pro
 180 185 190
 Phe Phe Leu Arg Gly Gln Pro Ile Pro Lys Arg Met Leu Pro Pro Glu
 195 200 205
 Glu Leu Val Pro Tyr Tyr Thr Asp Ala Lys Asn Arg Gly Tyr Leu Ala
 210 215 220
 Asp Pro Ala Lys Phe Pro Glu Ala Arg Leu Glu Leu Ala Arg Lys Tyr
 225 230 235 240
 Gly Tyr Ile Leu Pro Asp Ile Thr Lys Asp Glu Leu Phe Lys Met Leu
 245 250 255
 Cys Thr Arg Lys Asp Pro Arg Gln Ile Phe Phe Gly Leu Ala Pro Gly
 260 265 270
 Trp Val Val Asn Met Ala Asp Lys Lys Ile Leu Lys Pro Thr Asp Glu
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 Asn Leu Leu Lys Tyr Tyr Thr Ser
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<210> 4533
 <211> 968
 <212> DNA
 <213> Homo sapiens

<400> 4533
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 240
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 420
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 480
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 720
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 840
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<210> 4534

<211> 284

<212> PRT

<213> Homo sapiens

<400> 4534

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			20					25					30		
Glu	Ala	Asp	Arg	Val	Gly	Gln	Arg	Ala	Arg	Arg	Pro	Arg	Ala	Ala	Met
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Asp	Trp	Leu	Met	Gly	Lys	Ser	Lys	Ala	Lys	Pro	Asn	Gly	Lys	Lys	Pro
	50					55					60				
Ala	Ala	Glu	Glu	Arg	Lys	Ala	Tyr	Leu	Glu	Pro	Glu	His	Thr	Lys	Ala
65				70					75					80	
Arg	Ile	Thr	Asp	Phe	Gln	Phe	Lys	Glu	Leu	Val	Val	Leu	Pro	Arg	Glu
			85					90						95	
Ile	Asp	Leu	Asn	Glu	Trp	Leu	Ala	Ser	Asn	Thr	Thr	Thr	Phe	Phe	His
		100						105					110		
His	Ile	Asn	Leu	Gln	Tyr	Ser	Thr	Ile	Ser	Glu	Phe	Cys	Thr	Gly	Glu

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      115      120      125
Thr Cys Gln Thr Met Ala Val Cys Asn Thr Gln Tyr Tyr Trp Tyr Asp
  130      135      140
Glu Arg Gly Lys Lys Val Lys Cys Thr Ala Pro Gln Tyr Val Asp Phe
  145      150      155      160
Val Met Ser Ser Val Gln Lys Leu Val Thr Asp Glu Asp Val Phe Pro
      165      170      175
Thr Lys Tyr Gly Arg Glu Phe Pro Ser Ser Phe Glu Ser Leu Val Arg
      180      185      190
Lys Ile Cys Arg His Leu Phe His Val Leu Ala His Ile Tyr Trp Ala
      195      200      205
His Phe Lys Glu Thr Leu Ala Leu Glu Leu His Gly His Leu Asn Thr
      210      215      220
Leu Tyr Val His Phe Ile Leu Phe Ala Arg Glu Phe Asn Leu Leu Asp
  225      230      235      240
Pro Lys Glu Thr Ala Ile Met Asp Asp Leu Thr Glu Val Leu Cys Ser
      245      250      255
Gly Ala Gly Gly Val His Ser Gly Gly Ser Gly Asp Gly Ala Gly Ser
      260      265      270
Gly Gly Pro Gly Ala Gln Asn His Val Lys Glu Arg
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<210> 4535

<211> 473

<212> DNA

<213> Homo sapiens

<400> 4535

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240
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300
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360
ttcggtatga cctcccttgc tctattcctt ggaagaagta caggcactgg tcaagagtgc
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473

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<210> 4536

<211> 75

<212> PRT

<213> Homo sapiens

<400> 4536

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Arg Leu Phe Phe Phe Phe Phe Glu Met Glu Ser Arg Ser Val Thr
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Gln Ala Gly Val Gln Trp His Asp His Ser Ser Leu Gln Pro Leu Pro

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	20		25		30										
Pro	Arg	Phe	Lys	Gln	Phe	Ser	Xaa	Leu	Ser	Leu	Pro	Ser	Ser	Trp	Asp
	35		40		45										
Tyr	Arg	Arg	Pro	Pro	Pro	Arg	Pro	Ala	Asn	Phe	Cys	Ile	Phe	Ser	Arg
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<210> 4537
 <211> 2811
 <212> DNA
 <213> Homo sapiens

<400> 4537
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 1200

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2811

<210> 4538
 <211> 437
 <212> PRT
 <213> Homo sapiens

<400> 4538

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Ser	Ala	Leu	Ala	Leu	Ala	Phe	Tyr	Leu	Ala	Lys	Thr	Thr	Glu	Ala	Glu
		20						25					30		
Glu	Val	Phe	Val	Pro	Val	Leu	Asn	Ile	Lys	Arg	Ser	Glu	Leu	Pro	Leu
		35					40					45			
Arg	Gly	Asp	Ile	Val	Phe	Phe	Leu	Gln	Lys	Val	His	Ile	Pro	Glu	Ser
	50					55					60				
Ile	Leu	Ile	Phe	Arg	Asp	Glu	Ile	Asp	Leu	His	Ala	Leu	Tyr	Gln	Ala
65				70						75				80	
Gly	Gln	Leu	Thr	Leu	Ile	Leu	Val	Asp	His	His	Ile	Leu	Ser	Lys	Ser
			85					90						95	
Asp	Thr	Ala	Leu	Glu	Glu	Xaa	Ser	Ser	Arg	Gly	Ala	Arg	Pro	Ser	Thr
		100						105					110		
His	Arg	Ala	Glu	Thr	Leu	Pro	Ser	Leu	Xaa	His	Val	Ser	Val	Glu	Leu
		115					120					125			
Val	Gly	Ser	Cys	Ala	Thr	Leu	Val	Thr	Glu	Arg	Ile	Leu	Gln	Gly	Ala
	130					135					140				
Pro	Glu	Ile	Leu	Asp	Arg	Gln	Thr	Ala	Ala	Leu	Leu	His	Gly	Thr	Ile
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Ile	Leu	Asp	Cys	Val	Asn	Met	Asp	Leu	Lys	Ile	Gly	Lys	Ala	Thr	Pro
			165					170						175	
Lys	Asp	Ser	Lys	Tyr	Val	Glu	Lys	Leu	Glu	Ala	Leu	Phe	Pro	Asp	Leu
		180						185					190		
Pro	Lys	Arg	Asn	Asp	Ile	Phe	Asp	Ser	Leu	Gln	Lys	Ala	Lys	Phe	Asp
	195					200						205			
Val	Ser	Gly	Leu	Thr	Thr	Glu	Gln	Met	Leu	Arg	Lys	Asp	Gln	Lys	Thr
	210					215					220				
Ile	Tyr	Arg	Gln	Gly	Val	Lys	Val	Ala	Ile	Ser	Ala	Ile	Tyr	Met	Asp
225				230						235				240	
Leu	Glu	Ala	Phe	Leu	Gln	Arg	Ser	Asn	Leu	Leu	Ala	Asp	Leu	His	Ala
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Phe	Cys	Gln	Ala	His	Ser	Tyr	Asp	Val	Leu	Val	Ala	Met	Thr	Ile	Phe
		260						265					270		
Phe	Asn	Thr	His	Asn	Glu	Pro	Val	Arg	Gln	Leu	Ala	Ile	Phe	Cys	Pro
	275					280						285			
His	Val	Ala	Leu	Gln	Thr	Thr	Ile	Cys	Glu	Val	Leu	Glu	Arg	Ser	His
	290					295					300				
Ser	Pro	Pro	Leu	Lys	Leu	Thr	Pro	Ala	Ser	Ser	Thr	His	Pro	Asn	Leu
305				310						315				320	
His	Ala	Tyr	Leu	Gln	Gly	Asn	Thr	Gln	Val	Ser	Arg	Lys	Lys	Leu	Leu
			325					330						335	
Pro	Leu	Leu	Gln	Glu	Ala	Leu	Ser	Ala	Tyr	Phe	Asp	Ser	Met	Lys	Ile
		340						345					350		
Pro	Ser	Gly	Gln	Pro	Glu	Thr	Ala	Asp	Val	Ser	Arg	Glu	Gln	Val	Asp
	355					360						365			
Lys	Glu	Leu	Asp	Arg	Ala	Ser	Asn	Ser	Leu	Ile	Ser	Gly	Leu	Ser	Gln

370 375 380
 Asp Glu Glu Asp Pro Pro Leu Pro Pro Thr Pro Met Asn Ser Leu Val
 385 390 395 400
 Asp Glu Cys Pro Leu Asp Gln Gly Leu Pro Lys Leu Ser Ala Glu Ala
 405 410 415
 Val Phe Glu Lys Cys Ser Gln Ile Ser Leu Ser Gln Ser Thr Thr Ala
 420 425 430
 Ser Leu Ser Lys Lys
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<210> 4539
 <211> 331
 <212> DNA
 <213> Homo sapiens

<400> 4539
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 120
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 180
 agcagaaaag gaataactgt tcagagaaga agccgctgcc tttcctggct gcctccatca
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 300
 gcagcagctc aaagtgtcac ccaccggctt g
 331

<210> 4540
 <211> 99
 <212> PRT
 <213> Homo sapiens

<400> 4540
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 Lys Leu Gln Gln Glu Gln Arg Gln Val Glu Glu Leu Arg Met Gln Leu
 35 40 45
 Gln Lys Gln Lys Arg Asn Asn Cys Ser Glu Lys Lys Pro Leu Pro Phe
 50 55 60
 Leu Ala Ala Ser Ile Lys Gln Glu Glu Ala Val Ser Ser Cys Pro Phe
 65 70 75 80
 Ala Ser Gln Val Pro Val Lys Arg Gln Ser Ser Ser Ser Lys Cys His
 85 90 95
 Pro Pro Ala

<210> 4541
 <211> 452
 <212> DNA
 <213> Homo sapiens

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 120
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 180
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 240
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 452

<210> 4542
 <211> 128
 <212> PRT
 <213> Homo sapiens

<400> 4542
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 Ser Leu Trp Ile Cys Val Gln Ile Val Ile Lys Thr Gln Gly Lys Asn
 35 40 45
 Leu Gln Glu Lys Ser Val Pro Lys Ala Ala Gln Asp Leu Met Thr Asn
 50 55 60
 Gly Tyr Val Ser Leu Gln Glu Lys Asp Ile Phe Val Ser Gly Val Lys
 65 70 75 80
 Ile Phe Tyr Gly Ser Gln Thr Gly Thr Ala Lys Gly Phe Ala Thr Val
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 100 105 110
 Leu Lys Glu Tyr Asp Pro Asp Asp His Leu Ile Glu Glu Val Thr Ser
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<210> 4543
 <211> 815
 <212> DNA
 <213> Homo sapiens

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 gaggccccgc gcaccaatgc tttgcacttt gcctcgcccc acaccctgcg ggccagagct
 180

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<210> 4544

<211> 150

<212> PRT

<213> Homo sapiens

<400> 4544

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Lys	Cys	Lys	Ala	Leu	Val	Arg	Gly	Ala	Ser	Gly	Ser	His	Gly	Gly	Ala
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<211> 3568

<212> DNA

<213> Homo sapiens

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<210> 4547

<211> 2211

<212> DNA

<213> Homo sapiens

<400> 4547

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<212> PRT

<213> Homo sapiens

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	370					375					380				
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2820

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<210> 4550

<211> 908

<212> PRT

<213> Homo sapiens

<400> 4550

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Tyr	Val	Glu	Thr	Val	Asp	Ile	Asp	Gly	Glu	Thr	Asn	Leu	Lys	Phe	Arg
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Gln	Ala	Leu	Met	Val	Thr	His	Lys	Glu	Leu	Ala	Thr	Ile	Lys	Lys	Met
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Asp	Ile	Gly	Asn	Leu	Leu	Leu	Arg	Gly	Cys	Arg	Ile	Arg	Asn	Thr	Asp
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Phe	Asp	Thr	Lys	Ile	Met	Lys	Asn	Cys	Gly	Lys	Ile	His	Leu	Lys	Arg
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Ser	Val	Val	Leu	Val	Cys	Leu	Val	Leu	Ala	Phe	Gly	Phe	Gly	Phe	Ser
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Val	Lys	Glu	Phe	Lys	Asp	His	His	Tyr	Tyr	Leu	Ser	Gly	Val	His	Gly
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Ser	Ser	Val	Ala	Ala	Glu	Ser	Phe	Phe	Val	Phe	Trp	Ser	Phe	Leu	Ile
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Ile	Tyr	Leu	Gly	Asn	Ser	Val	Phe	Ile	Asp	Trp	Asp	Val	Gln	Met	Tyr
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Tyr	Lys	Pro	Gln	Asp	Val	Pro	Ala	Lys	Ala	Arg	Ser	Thr	Ser	Leu	Asn
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		260						265					270		
Leu	Thr	Gln	Asn	Ile	Leu	Thr	Phe	Asn	Lys	Cys	Cys	Ile	Ser	Gly	Arg
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Val	Tyr	Gly	Glu	Pro	Leu	Pro	Leu	Glu	Gln	Val	Arg	Arg	Arg	Glu	Ala
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Arg	Gly	Arg	Ala	Gly	Val	Leu	Ala	Pro	Ala	Gly	His	Leu	Pro	His	Gly
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Asp	Asp	Gln	Leu	Leu	Tyr	Gln	Ala	Ala	Ser	Pro	Asp	Glu	Gly	Ala	Leu

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Val	Thr	Ala	Ala	Arg	Asn	Phe	Gly	Tyr	Val	Phe	Leu	Ser	Arg	Thr	Gln	
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Asp	Thr	Val	Thr	Ile	Met	Glu	Leu	Gly	Glu	Glu	Arg	Val	Tyr	Gln	Val	
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Gln	Arg	His	Gln	Glu	Ala	Ser	Leu	Leu	Leu	Gln	Asn	Arg	Ala	Gln	Ala	
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Gln	Val	Lys	Leu	Ala	Leu	Val	Ile	Asn	Gly	Asp	Phe	Leu	Asp	Lys	Leu	
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Leu	Val	Ser	Leu	Arg	Lys	Glu	Pro	Arg	Ala	Leu	Ala	Gln	Asn	Val	Asn	
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Met	Asp	Glu	Ala	Trp	Gln	Glu	Leu	Gly	Gln	Ser	Arg	Arg	Asp	Phe	Leu	
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Tyr	Ala	Arg	Arg	Leu	Ser	Leu	Leu	Cys	Arg	Arg	Phe	Gly	Leu	Pro	Leu	
625				630						635					640	
Ala	Ala	Pro	Pro	Ala	Gln	Asp	Ser	Arg	Ala	Arg	Arg	Ser	Ser	Glu	Val	
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Ile	Cys	Cys	Arg	Val	Thr	Pro	Lys	Gln	Lys	Ala	Leu	Ile	Val	Ala	Leu	
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Gly Gln Asp Val Ser Ala Glu Gln Ser Leu Glu Lys Pro Glu Leu Tyr		
785	790	795
Val Val Gly Gln Lys Asp Glu Leu Phe Asn Tyr Trp Val Phe Val Gln		800
	805	810
Ala Ile Ala His Gly Val Thr Thr Ser Leu Val Asn Phe Phe Met Thr		815
	820	825
Leu Trp Ile Ser Arg Asp Thr Ala Gly Pro Ala Ser Phe Ser Asp His		830
	835	840
Gln Ser Phe Ala Val Val Val Ala Leu Ser Cys Leu Leu Ser Ile Thr		845
	850	855
Met Glu Val Ile Leu Ile Ile Lys Tyr Trp Thr Ala Leu Cys Val Ala		860
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Thr Ile Leu Leu Ser Leu Gly Phe Tyr Ala Ile Met Thr Thr Thr Thr		880
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<210> 4551
 <211> 361
 <212> DNA
 <213> Homo sapiens

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 361

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 35 40 45
 Cys Ser Gln Gln Gly Arg Gln Gly Arg Ala Pro Arg Arg Asp Pro Thr
 50 55 60
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<212> DNA
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2880

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<210> 4554
 <211> 705
 <212> PRT
 <213> Homo sapiens

<400> 4554
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 35 40 45
 Thr Val Asp Cys Asn Asp Leu Gly Leu Leu Thr Phe Pro Ala Arg Leu
 50 55 60
 Pro Ala Asn Thr Gln Ile Leu Leu Leu Gln Thr Asn Asn Ile Ala Lys
 65 70 75 80
 Ile Glu Tyr Ser Thr Asp Phe Pro Val Asn Leu Thr Gly Leu Asp Leu
 85 90 95
 Ser Gln Asn Asn Leu Ser Ser Val Thr Asn Ile Asn Val Lys Lys Met
 100 105 110
 Pro Gln Leu Leu Ser Val Tyr Leu Glu Glu Asn Lys Leu Thr Glu Leu
 115 120 125
 Pro Glu Lys Cys Leu Ser Glu Leu Ser Asn Leu Gln Glu Leu Tyr Ile
 130 135 140
 Asn His Asn Leu Leu Ser Thr Ile Ser Pro Gly Ala Phe Ile Gly Leu
 145 150 155 160
 His Asn Leu Leu Arg Leu His Leu Asn Ser Asn Arg Leu Gln Met Ile
 165 170 175
 Asn Ser Lys Trp Phe Asp Ala Leu Pro Asn Leu Glu Ile Leu Met Ile
 180 185 190
 Gly Glu Asn Pro Ile Ile Arg Ile Lys Asp Met Asn Phe Lys Pro Leu
 195 200 205
 Ile Asn Leu Arg Ser Leu Val Ile Ala Gly Ile Asn Leu Thr Glu Ile
 210 215 220
 Pro Asp Asn Ala Leu Val Gly Leu Glu Asn Leu Glu Ser Ile Ser Phe
 225 230 235 240
 Tyr Asp Asn Arg Leu Ile Lys Val Pro His Val Ala Leu Gln Lys Val
 245 250 255
 Val Asn Leu Lys Phe Leu Asp Leu Asn Lys Asn Pro Ile Asn Arg Ile
 260 265 270
 Arg Arg Gly Asp Phe Ser Asn Met Leu His Leu Lys Glu Leu Gly Ile
 275 280 285
 Asn Asn Met Pro Glu Leu Ile Ser Ile Asp Ser Leu Ala Val Asp Asn
 290 295 300
 Leu Pro Asp Leu Arg Lys Ile Glu Ala Thr Asn Asn Pro Arg Leu Ser
 305 310 315 320
 Tyr Ile His Pro Asn Ala Phe Phe Arg Leu Pro Lys Leu Glu Ser Leu
 325 330 335
 Met Leu Asn Ser Asn Ala Leu Ser Ala Leu Tyr His Gly Thr Ile Glu

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Cys	Asp	Cys	Val	Ile	Arg	Trp	Met	Asn	Met	Asn	Lys	Thr	Asn	Ile	Arg		
	370					375					380						
Phe	Met	Glu	Pro	Asp	Ser	Leu	Phe	Cys	Val	Asp	Pro	Pro	Glu	Phe	Gln		
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Gly	Gln	Asn	Val	Arg	Gln	Val	His	Phe	Arg	Asp	Met	Met	Glu	Ile	Cys		
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Leu	Pro	Leu	Ile	Ala	Pro	Glu	Ser	Phe	Pro	Ser	Asn	Leu	Asn	Val	Glu		
		420						425				430					
Ala	Gly	Ser	Tyr	Val	Ser	Phe	His	Cys	Arg	Ala	Thr	Ala	Glu	Pro	Gln		
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Pro	Glu	Ile	Tyr	Trp	Ile	Thr	Pro	Ser	Gly	Gln	Lys	Leu	Leu	Pro	Asn		
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Thr	Leu	Thr	Asp	Lys	Phe	Tyr	Val	His	Ser	Glu	Gly	Thr	Leu	Asp	Ile		
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Asn	Gly	Val	Thr	Pro	Lys	Glu	Gly	Gly	Leu	Tyr	Thr	Cys	Ile	Ala	Thr		
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			565					570					575				
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Lys	Gly	Leu	His	Pro	Asp	Gln	Lys	Glu	Tyr	Glu	Lys	Asn	Asn	Thr	Thr		
	610					615					620						
Thr	Leu	Met	Ala	Cys	Leu	Gly	Gly	Leu	Leu	Gly	Ile	Ile	Gly	Val	Ile		
625					630					635				640			
Cys	Leu	Ile	Ser	Cys	Leu	Ser	Pro	Glu	Met	Asn	Cys	Asp	Gly	Gly	His		
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Ser	Tyr	Val	Arg	Asn	Tyr	Leu	Gln	Lys	Pro	Thr	Phe	Ala	Leu	Gly	Glu		
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Leu	Tyr	Pro	Pro	Leu	Ile	Asn	Leu	Trp	Glu	Ala	Gly	Lys	Glu	Lys	Ser		
	675					680						685					
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Ser
705

<210> 4555

<211> 1128

<212> DNA

<213> Homo sapiens

<400> 4555

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<210> 4556

<211> 67

<212> PRT

<213> Homo sapiens

<400> 4556

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<210> 4557
<211> 446
<212> DNA
<213> Homo sapiens

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<213> Homo sapiens

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<212> DNA

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<212> PRT

<213> Homo sapiens

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<210> 4564

<211> 354

<212> PRT

<213> Homo sapiens

<400> 4564

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Asp	Glu	Asp	Gly	Leu	Val	Val	Leu	Val	Phe	Asn	Lys	Lys	Glu	Thr	Glu
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Ile	Arg	Ser	Gln	Gln	Gln	Gln	Leu	Val	Glu	Ser	Leu	His	Lys	Val	Leu
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Pro	Asp	Asp	Gln	Thr	Glu	Val	Val	Ile	Tyr	Val	Val	Glu	Arg	Ser	Pro
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			100					105						110	
Glu	Gln	Ala	Asn	Ile	Lys	Thr	Gln	Leu	Gln	Gln	Leu	Gly	Val	Thr	Leu
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Val	Asp	Asn	Pro	Asp	Ser	Glu	Lys	Leu	Ile	Pro	Val	Pro	Met	Val	Gly
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Phe	Lys	Glu	Leu	Leu	Arg	Arg	Leu	Lys	Val	Gln	Asp	Gln	Met	Thr	Lys
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Gln	Lys	Asn	Gln	Thr	Thr	Ser	Val	Ala	Lys	Ile	Ala	Gln	Tyr	Lys	Arg
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Leu	Ser	His	Leu	Ile	Ser	Ile	Ile	Lys	Asp	Asp	Leu	Glu	Asp	Ile	Lys
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<210> 4565
<211> 2344
<212> DNA
<213> Homo sapiens

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<211> 247

<212> PRT

<213> Homo sapiens

<400> 4566

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			20					25						30	
Glu	Ile	Leu	Arg	Leu	Arg	Gln	Ser	Glu	Arg	Met	Ser	Gln	Asp	Asp	Phe
		35					40					45			
Gln	Ser	Pro	Pro	Ile	Val	Glu	Leu	Arg	Glu	Lys	Ile	Gln	Pro	Glu	Ile
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Leu	Glu	Leu	Ile	Lys	Gln	Gln	Arg	Leu	Asn	Arg	Leu	Cys	Glu	Gly	Ser
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Ser	Phe	Arg	Lys	Ile	Gly	Asn	Arg	Arg	Arg	Gln	Glu	Arg	Phe	Trp	Tyr

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<210> 4568
 <211> 120
 <212> PRT
 <213> Homo sapiens

<400> 4568
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 35 40 45
 Val Gln Gln Arg Glu Leu Ala Val Thr Ser Pro Lys Asp Gly Ser Ile
 50 55 60
 Ser Ile Leu Gly Ser Asp Asp Ala Thr Thr Cys His Ile Val Val Leu
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 Arg His Thr Gly Asn Gly Ala Thr Cys Leu Thr His Cys Asp Gly Thr
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 <211> 1797
 <212> DNA
 <213> Homo sapiens

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<211> 141
 <212> PRT
 <213> Homo sapiens

<400> 4570

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			20					25					30			
Gln	Thr	Trp	His	Ile	Arg	Phe	Gly	Asp	Asn	Gly	Leu	Gly	Thr	Leu	Met	
		35					40					45				
Leu	Leu	Gly	Pro	Gly	Glu	Thr	Val	Leu	Arg	Gln	Lys	Leu	Gly	Val	Gln	
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Gly	Pro	Thr	Leu	Gln	Leu	Gly	Thr	Arg	Gly	Arg	Lys	Gln	Arg	Gly	Gln	
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			100					105				110				
Leu	Gln	Ala	Ala	Arg	Ser	Leu	Pro	Ser	Ala	Gly	Gly	Ser	Arg	Gly	Arg	
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 <212> DNA
 <213> Homo sapiens

<400> 4571

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<210> 4572
 <211> 126
 <212> PRT
 <213> Homo sapiens

<400> 4572
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 35 40 45
 Ile Asp Glu Leu Ile Glu Ser Gly Lys Glu Glu Gly Met Lys Ile Asp
 50 55 60
 Leu Ile Asp Gly Lys Gly Arg Gly Val Ile Ala Thr Lys Gln Phe Ser
 65 70 75 80
 Arg Gly Asp Phe Val Val Glu Tyr His Gly Asp Leu Ile Glu Ile Thr
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 <211> 309
 <212> DNA
 <213> Homo sapiens

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309

<210> 4574
<211> 103
<212> PRT
<213> Homo sapiens

<400> 4574
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35 40 45
Ala Gly Ala Val Gly Thr Pro Gly Lys Arg Gly Pro Ser Gly Pro Gln
50 55 60
Gly Leu Leu Gly Pro Pro Gly Pro Pro Ala Pro Val Gly Pro Pro His
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<210> 4575
<211> 1068
<212> DNA
<213> Homo sapiens

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<210> 4576

<211> 107

<212> PRT

<213> Homo sapiens

<400> 4576

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<211> 3525

<212> DNA

<213> Homo sapiens

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<210> 4578

<211> 1007

<212> PRT

<213> Homo sapiens

<400> 4578

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Leu Ala Ser Gly Asp Arg Ser Gly Asn Leu Arg Gln Val Gly Pro Gly
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Ser Val Gln Cys Thr Pro Pro Ser Ser Ser Ser Gly Ser Gln Gly Ser
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Gly Gln Lys Pro Trp Pro Trp His Leu Leu Leu Pro Ile Gly Asn Glu
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Gly Leu Ile His Glu Leu His Phe Met Asp Glu Leu Val Lys Val Glu
 85          90          95
Ala His Asp Ala Glu Val Leu Cys Leu Glu Tyr Ser Lys Pro Glu Thr
 100          105          110
Gly Leu Thr Leu Leu Ala Ser Ala Ser Arg Asp Arg Leu Ile His Val
 115          120          125
Leu Asn Val Glu Lys Asn Tyr Asn Leu Glu Gln Thr Leu Asp Asp His
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Met Ile Ser Cys Gly Ala Asp Lys Ser Ile Tyr Phe Arg Ser Ala Gln
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Lys Thr Thr Leu Tyr Asp Met Asp Ile Asp Ile Thr Gln Lys Tyr Val
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Gly Lys Gln Lys Lys Cys Tyr Lys Gly Ser Gln Gly Asp Glu Gly Ser
 225          230          235          240
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Phe	Thr	His	Thr	Phe	Pro	Pro	Arg	Ala	Thr	Gln	Cys	Leu	Val	Lys	Ser																																				
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Arg	Leu	Thr	Leu	Ser	Ser	Ala	Cys	Asp																																											

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885	890	895
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Val Ala Arg Trp Thr Pro Gly Ser Ser Arg His Gly Leu Ser Trp Ser		
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Pro His Arg Arg Cys Thr Pro Trp Pro Ala Gln Thr Cys Arg Pro Cys		
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 <212> DNA
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<211> 354

<212> PRT

<213> Homo sapiens

<400> 4582

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Trp	Arg	Asp	Met	Thr	Thr	Ile	Thr	Glu	Asp	Glu	Ile	Ser	Lys	Leu	Arg	
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Tyr	Asn	Gln	Leu	Gln	Val	Ile	Phe	Gln	Gly	Ile	Glu	Gly	Lys	Ile	Arg	
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Gln	Leu	Arg	Ala	His	Met	Ala	Arg	Ala	Arg	Leu	Arg	Glu	Arg	His	Gln
			325					330						335	
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<210> 4583
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 <212> DNA
 <213> Homo sapiens

<400> 4583
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<210> 4584
 <211> 923
 <212> PRT
 <213> Homo sapiens

<400> 4584
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 Gln Thr Met Lys Met Lys Ile Gln Thr Ser Phe Tyr Glu Leu Pro Thr
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 85 90 95
 Leu Lys Asp Leu Ser Pro Val Ile Val Thr Gln Leu Ala Leu Ala Ile
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 Ala Asp Leu Ala Leu Gln Met Pro Ser Trp Lys Gly Cys Val Gln Thr
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 130 135 140
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 145 150 155 160
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 Thr Asp Glu Lys Met Leu Met Lys Val Phe Arg Cys Leu Gly Ser Trp
 195 200 205
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 Leu Ala Leu Leu Phe Glu Val Leu Gln Gln Asp Lys Thr Ser Ser Asn

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Glu	Asn	Val	Glu	Thr	Asn	Leu	Pro	Leu	Ala	Met	Gln	Leu	Phe	Gln	Gly
		260		265		270									
Val	Leu	Thr	Leu	Glu	Thr	Ala	Tyr	His	Met	Ala	Val	Ala	Arg	Glu	Asp
		275		280		285									
Leu	Asp	Lys	Val	Leu	Asn	Tyr	Cys	Arg	Ile	Phe	Thr	Glu	Leu	Cys	Glu
		290		295		300									
Thr	Phe	Leu	Glu	Lys	Ile	Val	Cys	Thr	Pro	Gly	Gln	Gly	Leu	Gly	Asp
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Leu	Arg	Thr	Leu	Glu	Leu	Leu	Leu	Ile	Cys	Ala	Gly	His	Pro	Gln	Tyr
				325		330									335
Glu	Val	Val	Glu	Ile	Ser	Phe	Asn	Phe	Trp	Tyr	Arg	Leu	Gly	Glu	His
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Leu	Tyr	Lys	Thr	Asn	Asp	Glu	Val	Ile	His	Gly	Ile	Phe	Lys	Ala	Tyr
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Ile	Gln	Arg	Leu	Leu	His	Ala	Leu	Ala	Arg	His	Cys	Gln	Leu	Glu	Pro
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Met	Arg	Val	Ser	Asp	Leu	Val	Lys	Asp	Leu	Ile	Phe	Leu	Ile	Gly	Ser
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Met	Glu	Cys	Phe	Ala	Gln	Leu	Tyr	Ser	Thr	Leu	Lys	Glu	Gly	Asn	Pro
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Ser	Ile	Glu	Leu	Val	Gly	Glu	Met	Ser	Glu	Val	Val	Asp	Arg	Asn	Pro
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Gln	Phe	Leu	Asp	Pro	Val	Leu	Gly	Tyr	Leu	Met	Lys	Gly	Leu	Cys	Glu
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		515		520		525									
Val	Cys	Arg	Asp	His	Met	Ala	Gln	His	Phe	Asn	Gly	Leu	Leu	Glu	Ile
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Ala	Arg	Ser	Leu	Asp	Ser	Phe	Leu	Leu	Ser	Pro	Glu	Ala	Ala	Val	Gly
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Lys	Lys	Leu	Leu	Ser	Gln	Glu	Pro	Ser	Asn	Gly	Ile	Ser	Ser	Asp	Pro
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Thr	Val	Phe	Leu	Asp	Arg	Leu	Ala	Val	Ile	Phe	Arg	His	Thr	Asn	Pro
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Arg	Ile	Val	Glu	Arg	Cys	Cys	Arg	Cys	Leu	Arg	Phe	Ala	Val	Arg	Cys

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Ser Ile Leu Val Asp Glu Tyr Gly Met Glu Glu Gly Cys Arg Gln Gly		
705	710	715
Leu Leu Asp Met Leu Gln Ala Leu Cys Ile Pro Thr Phe Gln Leu Leu		
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Glu Gln Gln Asn Gly Leu Gln Asn His Pro Asp Thr Val Asp Asp Leu		
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Phe Arg Leu Ala Thr Arg Phe Ile Gln Arg Ser Pro Val Thr Leu Leu		
755	760	765
Arg Ser Gln Val Val Ile Pro Ile Leu Gln Trp Ala Ile Ala Ser Thr		
770	775	780
Thr Leu Asp His Arg Asp Ala Asn Cys Ser Val Met Arg Phe Leu Arg		
785	790	795
Asp Leu Ile His Thr Gly Val Ala Asn Asp His Glu Glu Asp Phe Glu		
805	810	815
Leu Arg Lys Glu Leu Ile Gly Gln Val Met Asn Gln Leu Gly Gln Gln		
820	825	830
Leu Val Ser Gln Leu Leu His Thr Cys Cys Phe Cys Leu Pro Pro Tyr		
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Lys Glu Thr Thr Val Gly Ala Val Thr Val Thr His Lys Gln Leu Thr		
885	890	895
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 <211> 1952
 <212> DNA
 <213> Homo sapiens

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<210> 4586

<211> 530

<212> PRT

<213> Homo sapiens

<400> 4586

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Lys	Asp	Val	His	Lys	Gly	Val	Gly	Gly	Ile	Ile	Phe	Ser	Ser	Ser	Pro
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Ile	Leu	Asp	Leu	Ser	Glu	Ser	Gly	Leu	Cys	Arg	Leu	Glu	Glu	Val	Phe
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Val	Ile	Pro	Gln	Asp	Phe	Phe	Gln	Leu	Leu	Pro	Asn	Leu	Thr	Trp	Leu
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Asp	Leu	Arg	Tyr	Asn	Arg	Ile	Lys	Ala	Leu	Pro	Ser	Gly	Ile	Gly	Ala
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His	Gln	His	Leu	Lys	Thr	Leu	Leu	Leu	Glu	Arg	Asn	Pro	Ile	Lys	Met
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Ser	Glu	Leu	Arg	Lys	Ser	Ala	Asp	Ser	Ser	Glu	Asn	Trp	Pro	Ser	Glu
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Arg	His	Val	Phe	Arg	Arg	Lys	Thr	Ala	Ser	Ser	Arg	Ser	Ile	Leu	Pro
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			340					345					350		
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	355					360					365				
Arg	Ala	Gln	Arg	Met	Arg	Lys	Arg	Lys	Glu	Glu	Leu	Ser	Lys	Leu	Leu
	370					375					380				
Pro	Pro	Arg	Arg	Ser	Met	Val	Ala	Ser	Lys	Ile	Pro	Ser	Ala	Thr	Asp

385 390 395 400
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 420 425 430
 Gln Glu Arg Asn Leu Glu Glu Lys Ile Lys Gln His Val Leu Gln Met
 435 440 445
 Arg Glu Gln Arg Arg Phe His Gly Gln Ala Pro Leu Glu Glu Met Arg
 450 455 460
 Lys Ala Ala Glu Asp Leu Glu Ile Ala Thr Glu Leu Gln Asp Glu Val
 465 470 475 480
 Leu Lys Leu Lys Leu Gly Leu Thr Leu Asn Lys Asp Arg Arg Arg Ala
 485 490 495
 Ala Leu Thr Gly Asn Leu Ser Leu Gly Leu Pro Ala Ala Gln Pro Gln
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 Tyr Gln
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 <213> Homo sapiens

<400> 4587
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<211> 328

<212> PRT

<213> Homo sapiens

<400> 4588

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Pro	Ser	Phe	Pro	Lys	Lys	Lys	Thr	Ala	Ala	Ser	Ser	Asn	Gly	Ser	Gly
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Gln	Pro	Leu	Asp	Lys	Lys	Ala	Ala	Val	Ser	Trp	Leu	Thr	Pro	Ala	Pro
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Ser	Lys	Lys	Ala	Asp	Ser	Val	Ala	Ala	Lys	Val	Asp	Leu	Leu	Gly	Glu
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Lys	Lys	Ser	Ser	Gln	Lys	Lys	Ser	Ser	Lys	Lys	Asn	His	Pro	Gln	Lys
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 <211> 585
 <212> DNA
 <213> Homo sapiens

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 35 40 45
 His Thr Leu Ser Pro Leu Ser Phe Arg Cys Ser Gln Arg Glu Pro Gln
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<210> 4591
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Ala Pro Leu	Trp Pro Ser Gly His Asp Arg	Leu His Glu Thr Arg	Lys
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Leu Arg Cys	Leu Ala Asp Arg Leu Val Ser Pro	His Pro Ala Ser	Ser
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Pro Gly Ser	Arg Tyr Leu Pro Gln Asn Ser	Leu His Lys Trp Pro	Gln
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Ala Cys Ala	Gly Leu Trp Gly Phe Leu Pro Trp	Ala Val Val Leu	Gly
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<210> 4593

<211> 4783

<212> DNA

<213> Homo sapiens

<400> 4593

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<211> 1145

<212> PRT

<213> Homo sapiens

<400> 4594

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Phe	Ser	Ser	Phe	Ala	Ser	Gln	Ala	Ser	Gly	Ser	Ser	Ser	Ser	Ala	Thr
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Thr	Val	Thr	Ser	Lys	Val	Ala	Pro	Ser	Trp	Pro	Glu	Ser	His	Ser	Ser
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3794

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Pro Gln Thr Pro Leu Asp Thr Gly Ile Pro Phe Pro Pro Val Phe Ser		685
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Thr Ser Ser Ala Gly Val Lys Ser Lys Ala Ser Leu Pro Asn Phe Leu		700
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<210> 4595

<211> 935

<212> DNA

<213> Homo sapiens

<400> 4595

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<210> 4596

<211> 169
 <212> PRT
 <213> Homo sapiens

<400> 4596

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Phe Leu Gly Thr Ser Ile Ser Ser Ser Ser Trp Ala Pro Leu Arg
      35           40           45
Gly Arg Glu Ala Ala Leu Pro Gly Pro Ala Gly Asp Xaa Ala Val Lys
      50           55           60
Gly Pro Ala Asp Pro Ala Ala Gln His Ser Arg Asp Gly Gln Gly Gly
      65           70           75           80
Trp Pro Pro Ala Gln Gly Thr Ala Ser Thr Ala Gly Lys Ser Gly Ala
      85           90           95
Pro Gly Ala Trp Ser Val Gly Gly Ala Thr Gly Pro Arg Gly Ala Lys
      100          105          110
Gly Pro Arg Thr Gly Arg Pro Ala Pro Ser Pro Gly Ser Pro Pro Arg
      115          120          125
Glu Ser Arg Cys Leu Ala Pro Gly Pro Ser Arg Leu Asp Pro Gly Pro
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Gln Ala Arg Pro Arg Arg Gly Ser Asn
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<210> 4597
 <211> 515
 <212> DNA
 <213> Homo sapiens

<400> 4597

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<210> 4598

<211> 135
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<400> 4598
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 35 40 45
 Leu Leu Ser Ala Pro Phe Cys Leu Leu Pro Ala Leu Ser Gln Ala Val
 50 55 60
 Ser Pro Arg Asn Ser Leu Arg Asn Ile Leu Thr Leu Asn Ser Thr Ala
 65 70 75 80
 Glu Pro Ser Ser Trp Glu Ser Arg Glu Arg Pro Leu Gln Ser Arg Asn
 85 90 95
 Val Tyr Ser Ser Ala Ser Phe Ser Glu His Leu Asp Gly Gly Cys Ser
 100 105 110
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<210> 4599
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 <212> DNA
 <213> Homo sapiens

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 420
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2314

<210> 4600
 <211> 228
 <212> PRT
 <213> Homo sapiens

<400> 4600
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 Ile Met Asn Tyr Leu Val Thr Glu Gly Phe Lys Glu Ala Ala Glu Lys
 35 40 45
 Phe Arg Met Glu Ser Gly Ile Glu Pro Ser Val Asp Leu Glu Thr Leu
 50 55 60
 Asp Glu Arg Ile Lys Ile Arg Glu Met Ile Leu Lys Gly Gln Ile Gln
 65 70 75 80
 Glu Ala Ile Ala Leu Ile Asn Ser Leu His Pro Glu Leu Leu Asp Thr
 85 90 95
 Asn Arg Tyr Leu Tyr Phe His Leu Gln Gln Gln His Leu Ile Glu Leu
 100 105 110
 Ile Arg Gln Arg Glu Thr Glu Ala Ala Leu Glu Phe Ala Gln Thr Gln
 115 120 125
 Leu Ala Glu Gln Gly Glu Glu Ser Arg Glu Cys Leu Thr Glu Met Glu
 130 135 140
 Arg Thr Leu Ala Leu Leu Ala Phe Asp Ser Pro Glu Glu Ser Pro Phe
 145 150 155 160
 Gly Asp Leu Leu His Thr Met Gln Arg Gln Lys Val Trp Ser Glu Val
 165 170 175
 Asn Gln Ala Val Leu Asp Tyr Glu Asn Arg Glu Ser Thr Pro Lys Leu
 180 185 190
 Ala Lys Leu Leu Lys Leu Leu Leu Trp Ala Gln Asn Glu Leu Asp Gln
 195 200 205
 Lys Lys Val Lys Tyr Pro Lys Met Thr Asp Leu Ser Lys Gly Val Ile
 210 215 220
 Glu Glu Pro Lys
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<210> 4601
 <211> 916
 <212> DNA
 <213> Homo sapiens

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 180
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<210> 4602

<211> 305

<212> PRT

<213> Homo sapiens

<400> 4602

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		20						25					30		
Ala	Val	Arg	Ser	Tyr	Tyr	Glu	Val	Phe	Leu	Lys	Ser	Asp	Arg	Val	Ala
		35					40				45				
Arg	Met	Val	Gln	Ser	Gly	Gly	Cys	Ser	Ala	Asn	Asp	Phe	Arg	Glu	Val
	50					55					60				
Phe	Lys	Lys	Asn	Ile	Glu	Lys	Arg	Val	Arg	Ser	Leu	Pro	Glu	Ile	Asp
65				70						75				80	
Gly	Leu	Ser	Lys	Glu	Thr	Val	Leu	Ser	Ser	Trp	Ile	Ala	Lys	Tyr	Asp
			85					90						95	
Ala	Ile	Tyr	Arg	Gly	Glu	Glu	Asp	Leu	Cys	Lys	Gln	Pro	Asn	Arg	Met
			100					105						110	
Ala	Leu	Ser	Ala	Val	Ser	Glu	Leu	Ile	Leu	Ser	Lys	Glu	Gln	Leu	Tyr
		115					120					125			
Glu	Met	Phe	Gln	Gln	Ile	Leu	Gly	Ile	Lys	Lys	Leu	Glu	His	Gln	Leu
	130					135					140				
Leu	Tyr	Asn	Ala	Cys	Gln	Leu	Asp	Asn	Ala	Asp	Glu	Gln	Ala	Ala	Gln
145				150						155					160
Ile	Arg	Arg	Glu	Leu	Asp	Gly	Arg	Leu	Gln	Leu	Ala	Asp	Lys	Met	Ala
			165					170						175	
Lys	Glu	Arg	Lys	Phe	Pro	Lys	Phe	Ile	Ala	Lys	Asp	Met	Glu	Asn	Met
		180						185					190		
Tyr	Ile	Glu	Glu	Leu	Arg	Ser	Ser	Val	Asn	Leu	Leu	Met	Ala	Asn	Leu

	195		200		205	
Glu	Ser	Leu	Pro	Val	Ser	Lys
	210				215	
Leu	Lys	Arg	Ser	Gln	Asn	Ser
225				230		235
Glu	Ile	Gln	Leu	Ser	Lys	Ser
			245			250
Ile	Val	Ile	Met	Glu	Val	Gln
			260			265
Ile	Val	Tyr	Cys	Thr	Met	Glu
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Pro						300
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<210> 4603

<211> 2090

<212> DNA

<213> Homo sapiens

<400> 4603

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<210> 4604

<211> 666

<212> PRT

<213> Homo sapiens

<400> 4604

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			20					25					30		
Ser	Ile	Leu	Asp	Ser	Leu	Glu	Pro	Gln	Ser	Leu	Ala	Ser	Leu	Leu	Ser
		35					40					45			
Glu	Ser	Glu	Ser	Pro	Gln	Glu	Ala	Gly	Arg	Gly	His	Pro	Ser	Phe	Leu
	50					55				60					
Pro	Gln	Gln	Lys	Glu	Ser	Ser	Glu	Ala	Ser	Glu	Leu	Ile	Leu	Tyr	Ser

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Leu	Glu	Ala	Glu	Val	Thr	Val	Thr	Gly	Thr	Asp	Ser	Gln	Tyr	Cys	Arg
				85					90					95	
Lys	Glu	Val	Glu	Ala	Gly	Pro	Gly	Asp	Gln	Gln	Gly	Asp	Ser	Tyr	Leu
			100					105					110		
Arg	Val	Ser	Ser	Asp	Ser	Pro	Lys	Asp	Gln	Ser	Pro	Pro	Glu	Asp	Ser
		115					120					125			
Gly	Glu	Ser	Glu	Ala	Asp	Leu	Glu	Cys	Ser	Phe	Ala	Ala	Ile	His	Ser
	130					135					140				
Pro	Ala	Pro	Pro	Pro	Asp	Pro	Ala	Pro	Arg	Phe	Ala	Thr	Ser	Leu	Pro
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His	Phe	Pro	Gly	Cys	Ala	Gly	Pro	Thr	Glu	Asp	Glu	Leu	Ser	Leu	Pro
				165					170					175	
Glu	Gly	Pro	Ser	Val	Pro	Ser	Ser	Ser	Leu	Pro	Gln	Thr	Pro	Glu	Gln
		180						185					190		
Glu	Lys	Phe	Leu	Arg	His	His	Phe	Glu	Thr	Leu	Thr	Glu	Ser	Pro	Cys
	195					200					205				
Arg	Ala	Leu	Gly	Asp	Val	Glu	Ala	Ser	Glu	Ala	Glu	Asp	His	Phe	Phe
	210					215				220					
Asn	Pro	Arg	Leu	Ser	Ile	Ser	Thr	Gln	Phe	Leu	Ser	Ser	Leu	Gln	Lys
225					230				235						240
Ala	Ser	Arg	Phe	Thr	His	Thr	Phe	Pro	Pro	Arg	Ala	Thr	Gln	Cys	Leu
				245					250					255	
Val	Lys	Ser	Pro	Glu	Val	Lys	Leu	Met	Asp	Arg	Gly	Gly	Ser	Gln	Pro
		260					265					270			
Arg	Ala	Gly	Thr	Gly	Tyr	Ala	Ser	Pro	Asp	Arg	Thr	His	Val	Leu	Ala
	275					280					285				
Ala	Gly	Lys	Ala	Glu	Glu	Thr	Leu	Glu	Ala	Trp	Arg	Pro	Pro	Pro	Pro
	290					295				300					
Cys	Leu	Thr	Ser	Leu	Ala	Ser	Cys	Val	Pro	Ala	Ser	Ser	Val	Leu	Pro
305					310					315					320
Thr	Asp	Arg	Asn	Leu	Pro	Thr	Pro	Thr	Ser	Ala	Pro	Thr	Pro	Gly	Leu
				325					330					335	
Ala	Gln	Gly	Val	His	Ala	Pro	Ser	Thr	Cys	Ser	Tyr	Met	Glu	Ala	Thr
		340						345				350			
Ala	Ser	Ser	Arg	Ala	Arg	Ile	Ser	Arg	Ser	Ile	Ser	Leu	Gly	Asp	Ser
	355					360					365				
Glu	Gly	Pro	Ile	Val	Ala	Thr	Leu	Ala	Gln	Pro	Leu	Arg	Arg	Pro	Ser
	370					375					380				
Ser	Val	Gly	Glu	Leu	Ala	Ser	Leu	Gly	Gln	Glu	Leu	Gln	Ala	Ile	Thr
385					390					395					400
Thr	Ala	Thr	Thr	Pro	Ser	Leu	Asp	Ser	Glu	Gly	Gln	Glu	Pro	Ala	Leu
				405					410					415	
Arg	Ser	Trp	Gly	Asn	His	Glu	Ala	Arg	Ala	Asn	Leu	Arg	Leu	Thr	Leu
			420					425					430		
Ser	Ser	Ala	Cys	Asp	Gly	Leu	Leu	Leu	Pro	Pro	Val	Asp	Thr	Gln	Pro
		435					440					445			
Gly	Val	Thr	Val	Pro	Ala	Val	Ser	Phe	Pro	Ala	Pro	Ser	Pro	Val	Glu
	450					455					460				
Glu	Ser	Ala	Leu	Arg	Leu	His	Gly	Ser	Ala	Phe	Arg	Pro	Ser	Leu	Pro
465					470				475						480
Ala	Pro	Glu	Ser	Pro	Gly	Leu	Pro	Ala	His	Pro	Ser	Asn	Pro	Gln	Leu
				485					490					495	
Pro	Glu	Ala	Arg	Pro	Gly	Ile	Pro	Gly	Gly	Thr	Ala	Ser	Leu	Leu	Glu

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Pro	Thr	Ser	Gly	Ala	Leu	Gly	Leu	Phe	Gln	Gly	Ser	Pro	Ala	Arg	Trp
	515		520		525										
Ser	Glu	Pro	Trp	Val	Pro	Val	Glu	Ala	Leu	Pro	Pro	Ser	Pro	Leu	Glu
	530		535		540										
Leu	Ser	Gly	Trp	Gly	Thr	Ser	Cys	Thr	Gly	Cys	Arg	Pro	Pro	Ser	Lys
545			550		555										560
Lys	Pro	Ser	Thr	Phe	Thr	Val	Cys	Trp	Ser	Pro	Val	Ala	Arg	Trp	Thr
			565		570										575
Pro	Gly	Ser	Ser	Arg	His	Gly	Leu	Ser	Trp	Ser	Pro	Pro	Ser	Cys	Gly
			580		585										
Ser	Thr	Ala	Ser	Trp	Arg	Leu	Asn	Ala	Trp	Trp	Gly	Leu	Val	Trp	Pro
			595		600										
Gln	Pro	Arg	Leu	Cys	Pro	Ala	Gln	Asp	Pro	Arg	Pro	His	Arg	Arg	Cys
	610		615		620										
Thr	Pro	Trp	Pro	Ala	Gln	Thr	Cys	Arg	Pro	Cys	Trp	Asn	Thr	Thr	Arg
625			630		635										640
Ser	Cys	Trp	Cys	Arg	Pro	Cys	Gly	Gly	Arg	His	Gly	Gly	Thr	Glu	Gly
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			660		665										

<210> 4605
 <211> 2998
 <212> DNA
 <213> Homo sapiens

<400> 4605
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<210> 4606

<211> 584

<212> PRT

<213> Homo sapiens

<400> 4606

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Trp	Ser	Leu	Pro	Asp	Gly	Ser	Leu	Val	Asn	Ser	Phe	Met	Gln	Ser	Asp	35	40	45	
Asp	Ser	Gly	Gly	Arg	Thr	Lys	Arg	Tyr	Val	Val	Phe	Asn	Asn	Gly	Thr	50	55	60	
Leu	Tyr	Phe	Asn	Glu	Val	Gly	Met	Arg	Glu	Glu	Gly	Asp	Tyr	Thr	Cys	65	70	75	80
Phe	Ala	Glu	Asn	Gln	Val	Gly	Lys	Asp	Glu	Met	Arg	Val	Arg	Val	Lys	85	90	95	
Val	Val	Thr	Ala	Pro	Ala	Thr	Ile	Arg	Asn	Lys	Thr	Cys	Leu	Ala	Val	100	105	110	
Gln	Val	Pro	Tyr	Gly	Asp	Val	Val	Thr	Val	Ala	Cys	Glu	Ala	Lys	Gly	115	120	125	
Glu	Pro	Met	Pro	Lys	Val	Thr	Trp	Leu	Ser	Pro	Thr	Asn	Lys	Val	Ile	130	135	140	
Pro	Thr	Ser	Ser	Glu	Lys	Tyr	Gln	Ile	Tyr	Gln	Asp	Gly	Thr	Leu	Leu	145	150	155	160
Ile	Gln	Lys	Ala	Gln	Arg	Ser	Asp	Ser	Gly	Asn	Tyr	Thr	Cys	Leu	Val	165	170	175	
Arg	Asn	Ser	Ala	Gly	Glu	Asp	Arg	Lys	Thr	Val	Trp	Ile	His	Val	Asn	180	185	190	
Val	Gln	Pro	Pro	Lys	Ile	Asn	Gly	Asn	Pro	Asn	Pro	Ile	Thr	Thr	Val	195	200	205	
Arg	Glu	Ile	Ala	Ala	Gly	Gly	Ser	Arg	Lys	Leu	Ile	Asp	Cys	Lys	Ala				

210	215	220
Glu Gly Ile Pro Thr	Pro Arg Val Leu Trp	Ala Phe Pro Glu Gly Val
225	230	235
Val Leu Pro Ala Pro Tyr Tyr Gly Asn Arg	Ile Thr Val His Gly Asn	240
245	250	255
Gly Ser Leu Asp Ile Arg Ser Leu Arg Lys Ser Asp Ser Val Gln Leu		
260	265	270
Val Cys Met Ala Arg Asn Glu Gly Gly Glu Ala Arg Leu Ile Leu Gln		
275	280	285
Leu Thr Val Leu Glu Pro Met Glu Lys Pro Ile Phe His Asp Pro Ile		
290	295	300
Ser Glu Lys Ile Thr Ala Met Ala Gly His Thr Ile Ser Leu Asn Cys		
305	310	315
Ser Ala Ala Gly Thr Pro Thr Pro Ser Leu Val Trp Val Leu Pro Asn		
325	330	335
Gly Thr Asp Leu Gln Ser Gly Gln Gln Leu Gln Arg Phe Tyr His Lys		
340	345	350
Ala Asp Gly Met Leu His Ile Ser Gly Leu Ser Ser Val Asp Ala Gly		
355	360	365
Ala Tyr Arg Cys Val Ala Arg Asn Ala Ala Gly His Thr Glu Arg Leu		
370	375	380
Val Ser Leu Lys Val Gly Leu Lys Pro Glu Ala Asn Lys Gln Tyr His		
385	390	395
Asn Leu Val Ser Ile Ile Asn Gly Glu Thr Leu Lys Leu Pro Cys Thr		
405	410	415
Pro Pro Gly Ala Gly Gln Gly Arg Phe Ser Trp Thr Leu Pro Asn Gly		
420	425	430
Met His Leu Glu Gly Pro Gln Thr Leu Gly Arg Val Ser Leu Leu Asp		
435	440	445
Asn Gly Thr Leu Thr Val Arg Glu Ala Ser Val Phe Asp Arg Gly Thr		
450	455	460
Tyr Val Cys Arg Met Glu Thr Glu Tyr Gly Pro Ser Val Thr Ser Ile		
465	470	475
Pro Val Ile Val Ile Ala Tyr Pro Pro Arg Ile Thr Ser Glu Pro Thr		
485	490	495
Pro Val Ile Tyr Thr Arg Pro Gly Asn Thr Val Lys Leu Asn Cys Met		
500	505	510
Ala Met Gly Ile Pro Lys Ala Asp Ile Thr Trp Glu Leu Pro Asp Lys		
515	520	525
Ser His Leu Lys Ala Gly Val Gln Ala Arg Leu Tyr Gly Asn Arg Phe		
530	535	540
Leu His Pro Gln Gly Ser Leu Thr Ile Gln His Ala Thr Gln Arg Asp		
545	550	555
Ala Gly Phe Tyr Lys Cys Met Ala Lys Asn Ile Leu Gly Ser Asp Ser		
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Lys Thr Thr Tyr Ile His Val Phe		
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<210> 4607

<211> 456

<212> DNA

<213> Homo sapiens

<400> 4607

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<210> 4608
 <211> 107
 <212> PRT
 <213> Homo sapiens

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 Phe Gln Met Thr Gln Glu Val Val Cys Asp Glu Cys Pro Asn Val Lys
 35 40 45
 Leu Val Asn Glu Glu Arg Thr Leu Glu Val Glu Ile Glu Pro Gly Val
 50 55 60
 Arg Asp Gly Met Glu Tyr Pro Phe Ile Gly Glu Gly Glu Pro His Val
 65 70 75 80
 Asp Gly Xaa Pro Gly Asp Leu Arg Phe Arg Ile Lys Val Val Lys His
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 Pro Ile Phe Glu Arg Arg Gly Asp Asp Leu Tyr
 100 105

<210> 4609
 <211> 904
 <212> DNA
 <213> Homo sapiens

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<210> 4610
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 <213> Homo sapiens

<400> 4610
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 35 40 45
 Gly Gly Thr Lys Val Pro Leu Glu Ala Arg Pro Val Arg Phe Leu Asp
 50 55 60
 Asn Phe Ser Ser Gly Arg Arg Gly Ala Thr Ser Ala Glu Ala Phe Leu
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 Ala Ala Gly Tyr Gly Val Leu Phe Leu Tyr Arg Ala Arg Ser Ala Phe
 85 90 95
 Pro Tyr Ala His Arg Phe Pro Pro Gln Thr Trp Leu Ser Ala Leu Arg
 100 105 110
 Pro Ser Gly Pro Ala Leu Ser Gly Leu Leu Ser Leu Glu Ala Glu Glu
 115 120 125
 Asn Ala Leu Pro Gly Phe Ala Glu Ala Leu Arg Ser Tyr Gln Glu Ala
 130 135 140
 Ala Ala Ala Gly Thr Phe Leu Ala Val Glu Phe Thr Thr Leu Ala Asp
 145 150 155 160
 Tyr Leu His Leu Leu Gln Ala Ala Ala Gln Ala Leu Asn Pro Leu Gly
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<210> 4612

<211> 532

<212> PRT

<213> Homo sapiens

<400> 4612

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Ala	Ala	Ala	Ala	Ile	Ala	Val	Ala	Ala	Ala	Glu	Glu	Glu	Arg	Arg	Leu
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		50				55				60					
Arg	Cys	Leu	Glu	Glu	Leu	Val	Phe	Gly	Asp	Val	Glu	Asn	Asp	Glu	Asp
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Ser	Gly	Asp	Ser	Glu	Val	Glu	Asn	Glu	Ala	Lys	Gly	Asn	Phe	Pro	Pro
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Gln	Lys	Lys	Pro	Val	Trp	Val	Asp	Glu	Glu	Asp	Glu	Asp	Glu	Glu	Met
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Val	Asp	Met	Met	Asn	Asn	Arg	Phe	Arg	Lys	Asp	Met	Met	Lys	Asn	Ala
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Glu	Phe	Gln	His	Ala	Met	Gly	Gly	Val	Pro	Ala	Trp	Ala	Glu	Thr	Thr

				165				170					175			
Lys	Arg	Lys	Thr	Ser	Ser	Asp	Asp	Glu	Ser	Glu	Glu	Asp	Glu	Asp	Asp	
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Leu	Leu	Gln	Arg	Thr	Gly	Asn	Phe	Ile	Ser	Thr	Ser	Thr	Ser	Leu	Pro	
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Thr	Ser	Thr	His	Ser	Lys	Val	Leu	Tyr	Val	Tyr	Asp	Met	Leu	Ala	Gly	
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Lys	Leu	Ile	Pro	Val	His	Gln	Val	Arg	Gly	Leu	Lys	Glu	Lys	Ile	Val	
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Arg	Ser	Phe	Glu	Val	Ser	Pro	Asp	Gly	Ser	Phe	Leu	Leu	Ile	Asn	Gly	
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Ile	Ala	Gly	Tyr	Leu	His	Leu	Leu	Ala	Met	Lys	Thr	Lys	Glu	Leu	Ile	
			340					345					350			
Gly	Ser	Met	Lys	Ile	Asn	Gly	Arg	Val	Ala	Ala	Ser	Thr	Phe	Ser	Ser	
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Asp	Ser	Lys	Lys	Val	Tyr	Ala	Ser	Ser	Gly	Asp	Gly	Glu	Val	Tyr	Val	
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Trp	Asp	Val	Asn	Ser	Arg	Lys	Cys	Leu	Asn	Arg	Phe	Val	Asp	Glu	Gly	
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Ser	Leu	Tyr	Gly	Leu	Ser	Ile	Ala	Thr	Ser	Arg	Asn	Gly	Gln	Tyr	Val	
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Ala	Cys	Gly	Ser	Asn	Cys	Gly	Val	Val	Asn	Ile	Tyr	Asn	Gln	Asp	Ser	
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Cys	Leu	Gln	Glu	Thr	Asn	Pro	Lys	Pro	Ile	Lys	Ala	Ile	Met	Asn	Leu	
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Val	Thr	Gly	Val	Thr	Ser	Leu	Thr	Phe	Asn	Pro	Thr	Thr	Glu	Ile	Leu	
	450					455						460				
Ala	Ile	Ala	Ser	Glu	Lys	Met	Lys	Glu	Ala	Val	Arg	Leu	Val	His	Leu	
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Pro	Ser	Cys	Thr	Val	Phe	Ser	Asn	Phe	Pro	Val	Ile	Lys	Asn	Lys	Asn	
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<210> 4613
<211> 454
<212> DNA
<213> Homo sapiens
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<400> 4613

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 180
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 240
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<210> 4614

<211> 117

<212> PRT

<213> Homo sapiens

<400> 4614

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Pro	Val	Thr	Cys	Leu	Ala	Pro	Thr	Ser	Asn	Glu	Phe	Thr	Arg	Gly	Asn
			20					25					30		
Glu	Phe	Thr	Asn	Gly	Asn	Leu	Thr	Met	Ser	Asn	Glu	Phe	His	Cys	Lys
		35				40					45				
Asp	Phe	Leu	Ile	Phe	Thr	Thr	Gln	Ile	Leu	Thr	Ile	Leu	Gln	Leu	Arg
	50				55				60						
Ser	Leu	Asn	Ile	Ile	Tyr	Asn	Lys	Gln	Asn	Leu	Val	Asn	Leu	Gln	Lys
65				70				75						80	
Ser	Asn	Ala	Leu	Lys	Lys	His	Gln	Ser	Leu	Cys	Met	Cys	Arg	Thr	Asp
			85					90					95		
Pro	Ala	Pro	Gln	Gly	Asn	Thr	Ala	Gly	Thr	Val	Pro	Arg	Thr	Leu	Thr
			100					105					110		
Ser	Val	Ser	Leu	Leu											
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<210> 4615

<211> 1350

<212> DNA

<213> Homo sapiens

<400> 4615

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 180
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 240

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 300
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 360
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 420
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 480
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 780
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 1320
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 1350

<210> 4616

<211> 188

<212> PRT

<213> Homo sapiens

<400> 4616

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Leu	Pro	Leu	Ser	Pro	Pro	Leu	Val	Glu	Asp	Ser	Ala	Phe	Glu	Pro	Ser
			20					25					30		
Arg	Lys	Asp	Met	Asp	Glu	Val	Glu	Glu	Lys	Ser	Lys	Asp	Val	Ile	Asn
		35					40					45			
Phe	Thr	Ala	Glu	Lys	Leu	Ser	Val	Asp	Glu	Val	Ser	Gln	Leu	Val	Ile
	50					55					60				
Ser	Pro	Leu	Cys	Gly	Ala	Ile	Ser	Leu	Phe	Val	Gly	Thr	Thr	Arg	Asn

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<210> 4617
<211> 2266
<212> DNA
<213> Homo sapiens
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120					
tggtggggct	cagtggggtc	ttcccgttgc	ttgtcattcc	cctagagatg	gggaccatgc
180					
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240					
ctcttgggca	atgtgtttct	gcatctgctg	cccgaagcct	gggcctacac	gtgcagcgcc
300					
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360					
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420					
accagccagg	cccccaacaa	agacccact	gctgctgccg	ccgcactcaa	tggaggccac
480					
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540					
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<211> 197

<212> PRT

<213> Homo sapiens

<400> 4618

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20					25					30					
Gln	Pro	Thr	Ala	Glu	Pro	Gly	Leu	Gly	Ala	Val	Val	Arg	Ser	Ile	Lys
35					40					45					
Val	Ser	Gly	Tyr	Leu	Asn	Leu	Leu	Ala	Asn	Thr	Ile	Asp	Asn	Phe	Thr
50					55					60					
His	Gly	Leu	Ala	Val	Ala	Ala	Ser	Phe	Leu	Val	Ser	Lys	Lys	Ile	Gly
65	70					75					80				
Leu	Leu	Thr	Thr	Met	Ala	Ile	Leu	Leu	His	Glu	Ile	Pro	His	Glu	Val
85					90					95					
Gly	Asp	Phe	Ala	Ile	Leu	Leu	Arg	Ala	Gly	Phe	Asp	Arg	Trp	Ser	Ala
100					105					110					
Ala	Lys	Leu	Gln	Leu	Ser	Thr	Ala	Leu	Gly	Gly	Leu	Leu	Gly	Ala	Gly
115					120					125					
Phe	Ala	Ile	Cys	Thr	Gln	Ser	Pro	Lys	Gly	Val	Glu	Glu	Thr	Ala	Ala
130					135					140					
Trp	Val	Leu	Pro	Phe	Thr	Ser	Gly	Gly	Phe	Leu	Tyr	Ile	Ala	Leu	Val
145	150					155					160				
Asn	Val	Leu	Pro	Asp	Leu	Leu	Glu	Glu	Glu	Asp	Pro	Trp	Arg	Ser	Leu
165					170					175					
Gln	Gln	Leu	Leu	Leu	Leu	Cys	Ala	Gly	Ile	Val	Val	Met	Val	Leu	Phe
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<210> 4619
<211> 539
<212> DNA
<213> Homo sapiens
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120
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180
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300
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420
tgtgtggcag ttgctggcgt gaggtctgta acattgatgg ctaagagctt gtagatttgc
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539
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<210> 4620
<211> 103
<212> PRT
<213> Homo sapiens
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<400> 4620

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 20 25 30
 Leu Gln Ala Arg Pro Asn Pro Arg Phe Pro Gly Arg Cys Thr Pro Gly
 35 40 45
 Trp Glu Lys Leu Thr Asn Glu Ser Ser Trp Gln Pro Pro Gln Ala Pro
 50 55 60
 Pro Asp Trp Ala Ser Trp Leu Cys Cys Gln Asp Tyr Asp Pro Leu Pro
 65 70 75 80
 Glu Ser Arg Arg Ser Pro Gln Ala Glu Arg Tyr Arg His Leu Cys Pro
 85 90 95
 Tyr Leu Asn Gln Glu Val Pro
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<210> 4621

<211> 2588

<212> DNA

<213> Homo sapiens

<400> 4621

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 180
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2588

<210> 4622
<211> 403
<212> PRT
<213> Homo sapiens

<400> 4622

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Thr	Leu	Thr	Leu	Arg	Met	Leu	Met	His	Gly	Lys	Glu	Val	Gly	Ser	Ile
			20					25					30		
Ile	Gly	Lys	Lys	Gly	Glu	Thr	Val	Lys	Arg	Ile	Arg	Glu	Gln	Ser	Ser
		35					40					45			
Ala	Arg	Ile	Thr	Ile	Ser	Glu	Gly	Ser	Cys	Pro	Glu	Arg	Ile	Thr	Thr
	50					55					60				
Ile	Thr	Gly	Ser	Thr	Ala	Ala	Val	Phe	His	Ala	Val	Ser	Met	Ile	Ala
65					70					75				80	
Phe	Lys	Leu	Asp	Glu	Asp	Leu	Cys	Ala	Ala	Pro	Ala	Asn	Gly	Gly	Asn
			85					90					95		
Val	Ser	Arg	Pro	Pro	Val	Thr	Leu	Arg	Leu	Val	Ile	Pro	Ala	Ser	Gln
			100					105					110		
Cys	Gly	Ser	Leu	Ile	Gly	Lys	Ala	Gly	Thr	Lys	Ile	Lys	Glu	Ile	Arg
		115					120					125			
Glu	Thr	Thr	Gly	Ala	Gln	Val	Gln	Val	Ala	Gly	Asp	Leu	Leu	Pro	Asn
	130					135					140				
Ser	Thr	Glu	Arg	Ala	Val	Thr	Val	Ser	Gly	Val	Pro	Asp	Ala	Ile	Ile
145					150					155				160	
Leu	Cys	Val	Arg	Gln	Ile	Cys	Ala	Val	Ile	Leu	Glu	Ser	Pro	Pro	Lys
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Gly	Ala	Thr	Ile	Pro	Tyr	His	Pro	Ser	Leu	Ser	Leu	Gly	Thr	Val	Leu
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Leu	Ser	Ala	Asn	Gln	Gly	Phe	Ser	Val	Gln	Gly	Gln	Tyr	Gly	Ala	Val
	195						200					205			
Thr	Pro	Ala	Glu	Val	Thr	Lys	Leu	Gln	Gln	Leu	Ser	Ser	His	Ala	Val
	210					215					220				
Pro	Phe	Ala	Thr	Pro	Ser	Val	Val	Pro	Gly	Leu	Asp	Pro	Gly	Thr	Gln
225					230					235				240	
Thr	Ser	Ser	Gln	Glu	Phe	Leu	Val	Pro	Asn	Asp	Leu	Ile	Gly	Cys	Val
			245						250					255	
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		260					265						270		
Ala	His	Ile	Lys	Ile	Gly	Asn	Gln	Ala	Glu	Gly	Ala	Gly	Glu	Arg	His
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Val	Thr	Ile	Thr	Gly	Ser	Pro	Val	Ser	Ile	Ala	Leu	Ala	Gln	Tyr	Leu
	290					295					300				
Ile	Thr	Ala	Cys	Leu	Glu	Thr	Ala	Lys	Ser	Thr	Ser	Gly	Gly	Thr	Pro
305					310					315				320	
Gly	Ser	Ala	Pro	Ala	Asp	Leu	Pro	Thr	Pro	Phe	Ser	Pro	Pro	Leu	Thr
			325						330					335	
Ala	Leu	Pro	Thr	Ala	Pro	Pro	Gly	Leu	Leu	Gly	Thr	Pro	Tyr	Ala	Ile
		340					345						350		
Ser	Leu	Ser	Asn	Phe	Ile	Gly	Leu	Lys	Pro	Val	Pro	Phe	Leu	Ala	Leu

	355		360		365	
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Lys	Met	Ala	Ala	Ala	Asn	Gly
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Ser	Pro	Tyr				

<210> 4623
 <211> 2220
 <212> DNA
 <213> Homo sapiens

<400> 4623
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<210> 4624

<211> 189

<212> PRT

<213> Homo sapiens

<400> 4624

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Leu	Lys	Arg	Lys	Lys	Lys	Lys	Lys	Arg	Lys	Glu	Ser	Gly	Val	Ala	Gly
			20					25					30		
Asp	Pro	Trp	Lys	Glu	Glu	Thr	Asp	Thr	Asp	Leu	Glu	Val	Val	Leu	Glu
			35				40					45			
Lys	Lys	Gly	Asn	Met	Asp	Glu	Ala	His	Ile	Asp	Gln	Val	Arg	Arg	Lys
			50			55				60					
Ala	Leu	Gln	Glu	Glu	Ile	Asp	Arg	Glu	Ser	Gly	Lys	Thr	Glu	Ala	Ser
65					70					75				80	
Glu	Thr	Arg	Lys	Trp	Thr	Gly	Thr	Gln	Phe	Gly	Gln	Trp	Asp	Thr	Ala
			85					90				95			
Gly	Phe	Glu	Asn	Glu	Asp	Gln	Lys	Leu	Lys	Phe	Leu	Arg	Leu	Met	Gly

			100						105					110					
Gly	Phe	Lys	Asn	Leu	Ser	Pro	Ser	Phe	Ser	Arg	Pro	Ala	Ser	Thr	Ile				
			115						120					125					
Ala	Arg	Pro	Asn	Met	Ala	Leu	Gly	Lys	Lys	Ala	Ala	Asp	Ser	Leu	Gln				
			130						135					140					
Gln	Asn	Leu	Gln	Arg	Asp	Tyr	Asp	Arg	Ala	Met	Ser	Trp	Lys	Tyr	Ser				
145					150					155					160				
Arg	Gly	Ala	Gly	Leu	Gly	Phe	Ser	Thr	Ala	Pro	Asn	Lys	Ile	Phe	Tyr				
				165						170					175				
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<210> 4625

<211> 334

<212> DNA

<213> Homo sapiens

<400> 4625

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 120
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 180
 ctaaagtccc tgcagcagca gcaacagcag cagcagcttc agaaacagca gcagcagcag
 240
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 334

<210> 4626

<211> 111

<212> PRT

<213> Homo sapiens

<400> 4626

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Asp	Met	Gln	Ala	Leu	Arg	Arg	Glu	Glu	Glu	Arg	Arg	Gln	Ala	Glu	Arg				
			20						25					30					
Glu	Gln	Glu	Tyr	Lys	Arg	Lys	Gln	Leu	Glu	Glu	Gln	Arg	Gln	Ser	Glu				
			35					40					45						
Arg	Leu	Gln	Arg	Gln	Leu	Gln	Gln	Glu	His	Ala	Tyr	Leu	Lys	Ser	Leu				
50					55						60								
Gln	Gln	Gln	Gln	Gln	Gln	Gln	Gln	Leu	Gln	Lys	Gln	Gln	Gln	Gln	Gln				
65					70					75				80					
Leu	Leu	Pro	Gly	Asp	Arg	Lys	Pro	Leu	Tyr	His	Tyr	Gly	Arg	Gly	Met				
				85					90					95					
Asn	Pro	Ala	Asp	Lys	Pro	Ala	Trp	Ala	Arg	Glu	Gly	Glu	Glu	Arg					
			100					105						110					

<210> 4627

<211> 1736

<212> DNA

<213> Homo sapiens

<400> 4627

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120
gtgcacgccc ggagtttgga gcctcttcca tcaagtggac ctgattttgg aggattagga
180
gaagaagctg aatttggtga agttgagcct gaagctaaac aggaatttct tgaaaacaaa
240
gatgtggttg ttcaacatgt tcattttgat ggacttgga ggactaaaga tgatatcatc
300
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360
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420
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480
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540
gtacttgccc tcaagcttcc taatcttctt ggtcgtgcag aaaagggtgac ctttcagttt
600
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660
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720
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780
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1080
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<210> 4628

<211> 469

<212> PRT

<213> Homo sapiens

<400> 4628

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Pro	Asp	Phe	Gly	Gly	Leu	Gly	Glu	Glu	Ala	Glu	Phe	Val	Glu	Val	Glu
			20					25					30		
Pro	Glu	Ala	Lys	Gln	Glu	Ile	Leu	Glu	Asn	Lys	Asp	Val	Val	Val	Gln
		35					40					45			
His	Val	His	Phe	Asp	Gly	Leu	Gly	Arg	Thr	Lys	Asp	Asp	Ile	Ile	Ile
	50					55					60				
Cys	Glu	Ile	Gly	Asp	Val	Phe	Lys	Ala	Lys	Asn	Leu	Ile	Glu	Val	Met
65					70					75					80
Arg	Lys	Ser	His	Glu	Ala	Arg	Glu	Lys	Leu	Leu	Arg	Leu	Gly	Ile	Phe
			85						90					95	
Arg	Gln	Val	Asp	Val	Leu	Ile	Asp	Thr	Cys	Gln	Gly	Asp	Gly	Ala	Leu
		100						105					110		
Pro	Asn	Gly	Leu	Asp	Val	Thr	Phe	Glu	Val	Thr	Glu	Leu	Arg	Arg	Leu
		115						120				125			
Thr	Gly	Ser	Tyr	Asn	Thr	Met	Val	Gly	Asn	Asn	Glu	Gly	Ser	Met	Val
	130					135					140				
Leu	Gly	Leu	Lys	Leu	Pro	Asn	Leu	Leu	Gly	Arg	Ala	Glu	Lys	Val	Thr
145					150					155					160
Phe	Gln	Phe	Ser	Tyr	Gly	Thr	Lys	Glu	Thr	Ser	Tyr	Gly	Leu	Ser	Phe
			165						170					175	
Phe	Lys	Pro	Arg	Pro	Gly	Asn	Phe	Glu	Arg	Asn	Phe	Ser	Val	Asn	Leu
		180						185					190		
Tyr	Lys	Val	Thr	Gly	Gln	Phe	Pro	Trp	Ser	Ser	Leu	Arg	Glu	Thr	Asp
		195					200					205			
Arg	Gly	Met	Ser	Ala	Glu	Tyr	Ser	Phe	Pro	Ile	Trp	Lys	Thr	Ser	His
	210					215					220				
Thr	Val	Lys	Trp	Glu	Gly	Val	Trp	Arg	Glu	Leu	Gly	Cys	Leu	Ser	Arg
225					230					235					240
Thr	Ala	Ser	Phe	Ala	Val	Arg	Lys	Glu	Ser	Gly	His	Ser	Leu	Lys	Ser
			245						250					255	
Ser	Leu	Ser	His	Ala	Met	Val	Ile	Asp	Ser	Arg	Asn	Ser	Ser	Ile	Leu
		260						265					270		
Pro	Arg	Arg	Gly	Ala	Leu	Leu	Lys	Val	Asn	Gln	Glu	Leu	Ala	Gly	Tyr
		275					280					285			
Thr	Gly	Gly	Asp	Val	Ser	Phe	Ile	Lys	Glu	Asp	Phe	Glu	Leu	Gln	Leu
	290					295					300				
Asn	Lys	Gln	Leu	Ile	Phe	Asp	Ser	Val	Phe	Ser	Ala	Ser	Phe	Trp	Gly

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<210> 4629
<211> 706
<212> DNA
<213> Homo sapiens
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120
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180
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240
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706

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<210> 4630

<211> 140
 <212> PRT
 <213> Homo sapiens

<400> 4630
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 Arg Asp Gln Gly Ala Leu Ser Leu Ser Arg Met Gly Arg Asp Ala Ser
 35 40 45
 Ser Trp Ala Leu Arg Val Ser Val Phe Pro Gln Ile Gly Lys Met Arg
 50 55 60
 Gly Arg Gly Gly Tyr Trp Gly Gln Ala Ser Ala Gln Pro Trp Val Leu
 65 70 75 80
 Leu Glu Pro Gly Leu Glu Pro Glu Val Gly Arg Val Ser Lys Leu Ser
 85 90 95
 Ser Trp Ile Pro Ile Cys Arg Thr Ala Pro Arg Thr Arg Ser Gly Val
 100 105 110
 Arg Ala His Pro Leu Ala Arg Ile Leu Gly Ser Leu Gly His Lys Ala
 115 120 125
 Gly Gln Gly Thr Arg Asp Pro Pro Thr Gln Glu Thr
 130 135 140

<210> 4631
 <211> 2756
 <212> DNA
 <213> Homo sapiens

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 gagtcggccg gctgggactt gcagatcgcg ctacgcgagct tttatgagga cggaggggat
 180
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 240
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 360
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 420
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 480
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 600
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 660
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 720

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<210> 4632

<211> 372

<212> PRT

<213> Homo sapiens

<400> 4632

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			20					25					30		
Asp	Leu	Gln	Ile	Ala	Leu	Ala	Ser	Phe	Tyr	Glu	Asp	Gly	Gly	Asp	Glu
		35					40					45			
Asp	Ile	Val	Thr	Ile	Ser	Gln	Ala	Thr	Pro	Ser	Ser	Val	Ser	Arg	Gly
	50					55					60				
Thr	Ala	Pro	Ser	Asp	Asn	Arg	Val	Thr	Ser	Phe	Arg	Asp	Leu	Ile	His
65					70					75				80	
Asp	Gln	Asp	Glu	Asp	Glu	Glu	Glu	Glu	Glu	Gly	Gln	Arg	Ser	Arg	Phe
			85						90					95	
Tyr	Ala	Gly	Gly	Ser	Glu	Arg	Ser	Gly	Gln	Gln	Ile	Val	Gly	Pro	Pro
			100					105					110		
Arg	Lys	Lys	Ser	Pro	Asn	Glu	Leu	Val	Asp	Asp	Leu	Phe	Lys	Gly	Ala
		115					120					125			
Lys	Glu	His	Gly	Ala	Val	Ala	Val	Glu	Arg	Val	Thr	Lys	Ser	Pro	Gly
	130					135					140				
Glu	Thr	Ser	Lys	Pro	Arg	Pro	Phe	Ala	Gly	Gly	Gly	Tyr	Arg	Leu	Gly
145				150					155					160	
Ala	Ala	Pro	Glu	Glu	Glu	Ser	Ala	Tyr	Val	Ala	Gly	Glu	Lys	Arg	Gln
			165					170					175		
His	Ser	Ser	Gln	Asp	Val	His	Val	Val	Leu	Lys	Leu	Trp	Lys	Ser	Gly
		180					185						190		
Phe	Ser	Leu	Asp	Asn	Gly	Glu	Leu	Arg	Ser	Tyr	Gln	Asp	Pro	Ser	Asn
		195					200					205			
Ala	Gln	Phe	Leu	Glu	Ser	Ile	Arg	Arg	Gly	Glu	Val	Pro	Ala	Glu	Leu
	210					215					220				
Arg	Arg	Leu	Ala	His	Gly	Gly	Gln	Val	Asn	Leu	Asp	Met	Glu	Asp	His
225				230						235				240	
Arg	Asp	Glu	Asp	Phe	Val	Lys	Pro	Lys	Gly	Ala	Phe	Lys	Ala	Phe	Thr
			245						250					255	
Gly	Glu	Gly	Gln	Lys	Leu	Gly	Ser	Thr	Ala	Pro	Gln	Val	Leu	Ser	Thr

260 265 270
 Ser Ser Pro Ala Gln Gln Ala Glu Asn Glu Ala Lys Ala Ser Ser Ser
 275 280 285
 Ile Leu Ile Asp Glu Ser Glu Pro Thr Thr Asn Ile Gln Ile Arg Leu
 290 295 300
 Ala Asp Gly Gly Arg Leu Val Gln Lys Phe Asn His Ser His Arg Ile
 305 310 315 320
 Ser Asp Ile Arg Leu Phe Ile Val Asp Ala Arg Pro Ala Met Ala Ala
 325 330 335
 Thr Ser Phe Ile Leu Met Thr Thr Phe Pro Asn Lys Glu Leu Ala Asp
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 Glu Ser Gln Thr Leu Lys Glu Ala Asn Leu Leu Asn Ala Val Ile Val
 355 360 365
 Gln Arg Leu Thr
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<210> 4633

<211> 873

<212> DNA

<213> Homo sapiens

<400> 4633

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 780
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 873

<210> 4634

<211> 242
<212> PRT
<213> Homo sapiens

<400> 4634
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Ala Asn Leu Gly Lys Phe Leu Glu Leu Leu Arg Ser His Gln Ser Arg
35 40 45
Pro Ala Lys Cys Leu Thr Ile Met Trp Ala Leu Gly Gln Ala Gly Phe
50 55 60
Ala Asn Leu Thr Glu Gly Leu Lys Val Trp Leu Gly Ile Met Leu Pro
65 70 75 80
Val Leu Gly Ile Lys Ser Leu Ser Pro Phe Ala Ile Thr Tyr Leu Asp
85 90 95
Arg Leu Leu Leu Met His Pro Asn Leu Thr Lys Gly Phe Gly Met Ile
100 105 110
Gly Pro Lys Asp Phe Phe Pro Leu Leu Asp Phe Ala Tyr Met Pro Asn
115 120 125
Asn Ser Leu Thr Pro Ser Leu Gln Glu Gln Leu Cys Gln Leu Tyr Pro
130 135 140
Arg Leu Lys Val Leu Ala Phe Gly Ala Lys Pro Asp Ser Thr Leu His
145 150 155 160
Thr Tyr Phe Pro Ser Phe Leu Ser Arg Ala Thr Pro Ser Cys Pro Pro
165 170 175
Glu Met Lys Lys Glu Leu Leu Ser Ser Leu Thr Glu Cys Leu Thr Val
180 185 190
Asp Pro Leu Ser Ala Ser Val Trp Arg Gln Leu Tyr Pro Lys His Leu
195 200 205
Ser Gln Ser Ser Leu Leu Leu Glu His Leu Leu Ser Ser Trp Glu Gln
210 215 220
Ile Pro Lys Lys Val Gln Lys Ser Leu Gln Glu Thr Ile Gln Ser Leu
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Lys Leu

<210> 4635
<211> 384
<212> DNA
<213> Homo sapiens

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180
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240
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<210> 4636
 <211> 108
 <212> PRT
 <213> Homo sapiens

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 Lys Glu Val Lys Trp Gly Pro Arg Arg Lys Ala Gly Gly Val Trp Ala
 35 40 45
 Glu Pro Ala Ser Gly Gly Leu Pro Pro Pro Glu Asp Glu Phe Cys Ser
 50 55 60
 Pro Gly Val Cys Thr Leu Thr Leu Ala His Ser Leu Thr His Lys Thr
 65 70 75 80
 Leu Thr Leu Cys Phe Phe Trp Gly Glu Gly His Trp Gln Lys Arg
 85 90 95
 Leu Pro Trp Pro Gln Ser Val Pro Ile Leu Ile Phe
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<210> 4637
 <211> 2162
 <212> DNA
 <213> Homo sapiens

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 120
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 180
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1380
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1980
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2162

<210> 4638

<211> 446
 <212> PRT
 <213> Homo sapiens

<400> 4638

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Thr Lys Ala Gly Tyr Lys Leu Phe Ser Leu Ser Ser Val Glu Gln Leu
      35           40           45
Asp Gln Val His Gly Ser Asn Glu Ile Pro Asp Val Tyr Ile Val Glu
      50           55           60
Arg Leu Phe Ser Ser Ser Leu Val Val Val Val Ser His Thr Lys Pro
      65           70           75           80
Arg Gln Met Asn Val Tyr His Phe Lys Lys Gly Thr Glu Ile Cys Asn
      85           90           95
Tyr Ser Tyr Ser Ser Asn Ile Leu Ser Ile Arg Leu Asn Arg Gln Arg
      100          105          110
Leu Leu Val Cys Leu Glu Glu Ser Ile Tyr Ile His Asn Ile Lys Asp
      115          120          125
Met Lys Leu Leu Lys Thr Leu Leu Asp Ile Pro Ala Asn Pro Thr Gly
      130          135          140
Leu Cys Ala Leu Ser Ile Asn His Ser Asn Ser Tyr Leu Ala Tyr Pro
      145          150          155          160
Gly Ser Leu Thr Ser Gly Glu Ile Val Leu Tyr Asp Gly Asn Ser Leu
      165          170          175
Lys Thr Val Cys Thr Ile Ala Ala His Glu Gly Thr Leu Ala Ala Ile
      180          185          190
Thr Phe Asn Ala Ser Gly Ser Lys Leu Ala Ser Ala Ser Glu Lys Gly
      195          200          205
Thr Val Ile Arg Val Phe Ser Val Pro Asp Gly Gln Lys Leu Tyr Glu
      210          215          220
Phe Arg Arg Gly Met Lys Arg Tyr Val Thr Ile Ser Ser Leu Val Phe
      225          230          235          240
Ser Met Asp Ser Gln Phe Leu Cys Ala Ser Ser Asn Thr Glu Thr Val
      245          250          255
His Ile Phe Lys Leu Glu Gln Val Thr Asn Ser Arg Pro Glu Glu Pro
      260          265          270
Ser Thr Trp Ser Gly Tyr Met Gly Lys Met Phe Met Ala Ala Thr Asn
      275          280          285
Tyr Leu Pro Thr Gln Val Ser Asp Met Met His Gln Asp Arg Ala Phe
      290          295          300
Ala Thr Ala Arg Leu Asn Phe Ser Gly Gln Arg Asn Ile Cys Thr Leu
      305          310          315          320
Ser Thr Ile Gln Lys Leu Pro Arg Leu Leu Val Ala Ser Ser Ser Gly
      325          330          335
His Leu Tyr Met Tyr Asn Leu Asp Pro Gln Asp Gly Gly Glu Cys Val
      340          345          350
Leu Ile Lys Thr His Ser Leu Leu Gly Ser Gly Thr Thr Glu Glu Asn
      355          360          365
Lys Glu Asn Asp Leu Arg Pro Ser Leu Pro Gln Ser Tyr Ala Ala Thr
      370          375          380
Val Ala Arg Pro Ser Ala Ser Ser Ala Ser Thr Val Pro Gly Tyr Ser

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385		390		395		400									
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Ala	Thr	Gly	Pro	Val	Cys	Leu	Asp	Asp	Glu	Asn	Glu	Phe	Pro	Pro	Ile
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Ile	Leu	Cys	Arg	Gly	Asn	Gln	Lys	Gly	Lys	Thr	Lys	Gln	Ser		
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<210> 4639
 <211> 1007
 <212> DNA
 <213> Homo sapiens

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 120
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 180
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 240
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 aattctcttt taaaaaatta acagtaaaaa taggagttac ttactatcta gatgaacaca
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 420
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 480
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 720
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 780
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<210> 4640
 <211> 71
 <212> PRT
 <213> Homo sapiens

<400> 4640

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Pro Cys Phe Phe Leu Glu Arg Asn Ile Pro Asn Phe Leu Leu Leu Leu
      20           25           30
Leu Arg Arg Ser Phe Ala Leu Val Ala Gln Ala Arg Val Gln Trp Arg
      35           40           45
Asp Leu Ser Ser Leu Gln Pro Pro Pro Pro Arg Leu Lys Arg Phe Ser
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His Leu Ser Leu Pro Ser Ser
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<210> 4641

<211> 1873

<212> DNA

<213> Homo sapiens

<400> 4641

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420
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<210> 4642

<211> 306

<212> PRT

<213> Homo sapiens

<400> 4642

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Gln	Trp	Asn	Tyr	Cys	Thr	Leu	Ser	Gln	Glu	Ile	Leu	Arg	Arg	Pro	Ile
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Val	Ala	Cys	Glu	Leu	Gly	Arg	Leu	Tyr	Asn	Lys	Asp	Ala	Val	Ile	Glu
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Phe	Leu	Leu	Asp	Lys	Ser	Ala	Glu	Lys	Ala	Leu	Gly	Lys	Ala	Ala	Ser
65				70				75						80	
His	Ile	Lys	Ser	Ile	Lys	Asn	Val	Thr	Glu	Leu	Lys	Leu	Ser	Asp	Asn
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Pro	Ala	Trp	Glu	Gly	Asp	Lys	Gly	Asn	Thr	Lys	Gly	Asp	Lys	His	Asp
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Asp	Leu	Gln	Arg	Ala	Arg	Phe	Ile	Cys	Pro	Val	Val	Gly	Leu	Glu	Met
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Asn	Gly	Arg	His	Arg	Phe	Cys	Phe	Leu	Arg	Cys	Cys	Gly	Cys	Val	Phe
	130					135					140				
Ser	Glu	Arg	Ala	Leu	Lys	Glu	Ile	Lys	Ala	Glu	Val	Cys	His	Thr	Cys

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 165 170 175
 Glu Asp Val Asp Val Leu Lys Thr Arg Met Glu Glu Arg Arg Leu Arg
 180 185 190
 Ala Lys Leu Glu Lys Lys Thr Lys Lys Pro Lys Ala Ala Glu Ser Val
 195 200 205
 Ser Lys Pro Asp Val Ser Glu Glu Ala Pro Gly Pro Ser Lys Val Lys
 210 215 220
 Thr Gly Lys Pro Glu Glu Ala Ser Leu Asp Ser Arg Glu Lys Lys Thr
 225 230 235 240
 Asn Leu Ala Pro Lys Ser Thr Ala Met Asn Glu Ser Ser Ser Gly Lys
 245 250 255
 Ala Gly Lys Pro Pro Cys Gly Ala Thr Lys Arg Ser Ile Ala Asp Ser
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 Glu Glu Ser Glu Ala Tyr Lys Ser Leu Phe Thr Thr His Ser Ser Ala
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<210> 4643

<211> 1125

<212> DNA

<213> Homo sapiens

<400> 4643

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<211> 270

<212> PRT

<213> Homo sapiens

<400> 4644

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			20					25					30		
Gly	Ala	Arg	Val	Val	Ile	Cys	Asp	Lys	Asp	Glu	Ser	Gly	Gly	Arg	Ala
			35				40						45		
Leu	Glu	Gln	Glu	Leu	Pro	Gly	Ala	Val	Phe	Ile	Leu	Cys	Asp	Val	Thr
	50					55					60				
Gln	Glu	Asp	Asp	Met	Lys	Thr	Leu	Val	Ser	Glu	Thr	Ile	Arg	Arg	Phe
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Gly	Arg	Leu	Asp	Cys	Val	Val	Asn	Asn	Ala	Gly	His	His	Pro	Pro	Pro
				85					90					95	
Gln	Arg	Pro	Glu	Glu	Thr	Ser	Ala	Gln	Gly	Phe	Arg	Gln	Leu	Leu	Glu
			100					105					110		
Leu	Asn	Leu	Leu	Gly	Thr	Tyr	Thr	Leu	Thr	Lys	Leu	Ala	Leu	Pro	Tyr
	115						120					125			
Leu	Arg	Lys	Ser	Gln	Gly	Asn	Val	Ile	Asn	Ile	Ser	Ser	Leu	Val	Gly
	130					135					140				
Ala	Ile	Gly	Gln	Ala	Gln	Ala	Val	Pro	Tyr	Val	Ala	Thr	Lys	Gly	Ala
145					150					155					160
Val	Thr	Ala	Met	Thr	Lys	Ala	Leu	Ala	Leu	Asp	Glu	Ser	Pro	Tyr	Gly
				165					170					175	
Val	Arg	Val	Asn	Cys	Ile	Ser	Pro	Gly	Asn	Ile	Trp	Thr	Pro	Leu	Trp
			180					185					190		
Glu	Glu	Leu	Ala	Ala	Leu	Met	Pro	Asp	Pro	Arg	Ala	Thr	Ile	Arg	Glu
	195						200					205			
Gly	Met	Leu	Ala	Gln	Pro	Leu	Gly	Arg	Met	Gly	Gln	Pro	Ala	Glu	Val
	210					215					220				
Gly	Ala	Ala	Ala	Val	Phe	Leu	Ala	Ser	Glu	Ala	Asn	Phe	Cys	Thr	Gly
225					230					235					240
Ile	Glu	Leu	Leu	Val	Thr	Gly	Gly	Ala	Glu	Leu	Gly	Tyr	Gly	Cys	Lys
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<211> 1725
<212> DNA
<213> Homo sapiens

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<210> 4646

<211> 358

<212> PRT

<213> Homo sapiens

<400> 4646

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Pro	Arg	Ser	Ala	Ser	Ile	Lys	Asp	Ile	Lys	Lys	Ala	Tyr	Arg	Lys	Leu	35	40	45	
Ala	Leu	Gln	Leu	His	Pro	Asp	Arg	Asn	Pro	Asp	Asp	Pro	Gln	Ala	Gln	50	55	60	
Glu	Lys	Phe	Gln	Asp	Leu	Gly	Ala	Ala	Tyr	Glu	Val	Leu	Ser	Asp	Ser	65	70	75	80
Glu	Lys	Arg	Lys	Gln	Tyr	Asp	Thr	Tyr	Gly	Glu	Glu	Gly	Leu	Lys	Asp	85	90	95	
Gly	His	Gln	Ser	Ser	His	Gly	Asp	Ile	Phe	Ser	His	Phe	Phe	Gly	Asp	100	105	110	
Phe	Gly	Phe	Met	Phe	Gly	Gly	Thr	Pro	Arg	Gln	Gln	Asp	Arg	Asn	Ile	115	120	125	
Pro	Arg	Gly	Ser	Asp	Ile	Ile	Val	Asp	Leu	Glu	Val	Thr	Leu	Glu	Glu	130	135	140	
Val	Tyr	Ala	Gly	Asn	Phe	Val	Glu	Val	Val	Arg	Asn	Lys	Pro	Val	Ala	145	150	155	160
Arg	Gln	Ala	Pro	Gly	Lys	Arg	Lys	Cys	Asn	Cys	Arg	Gln	Glu	Met	Arg	165	170	175	
Thr	Thr	Gln	Leu	Gly	Pro	Gly	Arg	Phe	Gln	Met	Thr	Gln	Glu	Val	Val	180	185	190	
Cys	Asp	Glu	Cys	Pro	Asn	Val	Lys	Leu	Val	Asn	Glu	Glu	Arg	Thr	Leu	195	200	205	
Glu	Val	Glu	Ile	Glu	Pro	Gly	Val	Arg	Asp	Gly	Met	Glu	Tyr	Pro	Phe	210	215	220	
Ile	Gly	Glu	Gly	Glu	Pro	His	Val	Asp	Gly	Glu	Pro	Gly	Asp	Leu	Arg	225	230	235	240
Phe	Arg	Ile	Lys	Val	Val	Lys	His	Pro	Ile	Phe	Glu	Arg	Arg	Gly	Asp	245	250	255	
Asp	Leu	Tyr	Thr	Asn	Val	Thr	Ile	Ser	Leu	Val	Glu	Ser	Leu	Val	Gly	260	265	270	
Phe	Glu	Met	Asp	Ile	Thr	His	Leu	Asp	Gly	His	Lys	Val	His	Ile	Ser	275	280	285	
Arg	Asp	Lys	Ile	Thr	Arg	Pro	Gly	Ala	Lys	Leu	Trp	Lys	Lys	Gly	Glu				

290	295	300
Gly Leu Pro Asn Phe Asp	Asn Asn Asn Ile Lys	Gly Ser Leu Ile Ile
305	310	315
Thr Phe Asp Val Asp Phe	Pro Lys Glu Gln Leu	Thr Glu Glu Ala Arg
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Glu Gly Ile Lys Gln Leu	Leu Lys Gln Gly Ser	Val Gln Lys Val Tyr
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<210> 4647

<211> 791

<212> DNA

<213> Homo sapiens

<400> 4647

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<210> 4648

<211> 188

<212> PRT

<213> Homo sapiens

<400> 4648

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Leu	Ser	Ser	Asp	Gly	Thr	Tyr	Phe	Tyr	Trp	Ile	Trp	Ser	Pro	Ala	Ser

	20		25		30										
Leu	Asn	Glu	Lys	Thr	Pro	Lys	Gly	His	Ser	Val	Phe	Met	Asp	Ile	Phe
	35		40		45										
Glu	Leu	Val	Val	Glu	Asn	Gly	Val	Phe	Val	Ala	Asn	Pro	Leu	Gln	Glu
	50		55		60										
Arg	Thr	Ile	Leu	Met	Arg	Lys	Glu	Gly	Glu	Ser	Ala	Lys	Ser	Ile	Asn
65					70					75				80	
Glu	Met	Leu	Leu	Ser	Arg	Leu	Ser	Arg	Tyr	Arg	Ala	Ser	Pro	Ser	Ala
				85					90					95	
Thr	Leu	Ala	Ala	Leu	Thr	Gly	Ser	Thr	Ile	Ser	Asn	Thr	Leu	Lys	Glu
				100					105					110	
Asp	Gln	Ala	Ala	Asn	Thr	Ser	Cys	Gly	Leu	Pro	Leu	Lys	Met	Leu	Arg
	115							120				125			
Lys	Thr	Pro	Ile	Tyr	Thr	Cys	Gly	Thr	Tyr	Leu	Val	Met	Leu	Val	Pro
	130					135						140			
Pro	Pro	Gly	Gly	Ser	Gly	Ser	Ser	Ala	Thr	Arg	Ser	Leu	Phe	Gly	Gly
145					150					155				160	
Thr	Ser	Gly	Leu	Ser	Ser	Leu	Lys	Ile	Leu	Ala	Ser	Ser	Leu	Val	Tyr
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Asn	Ile	Ser	Asp	Gly	Gln	Phe	Thr	Ser	Arg	Ala	Asp				
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<210> 4649

<211> 3276

<212> DNA

<213> Homo sapiens

<400> 4649

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<210> 4650

<211> 965

<212> PRT

<213> Homo sapiens

<400> 4650

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			20					25					30		
Glu	Val	Ala	Val	Lys	Val	Cys	Leu	Leu	Asn	Phe	Met	Ile	Thr	Pro	Leu
		35				40					45				
Gly	Leu	Gln	Asp	Gln	Leu	Leu	Gly	Ile	Val	Ala	Ala	Lys	Glu	Lys	Pro
	50				55					60					
Glu	Leu	Glu	Glu	Lys	Lys	Asn	Gln	Leu	Ile	Val	Glu	Ser	Ala	Lys	Asn
65				70				75					80		
Lys	Lys	His	Leu	Lys	Glu	Ile	Glu	Asp	Lys	Ile	Leu	Glu	Val	Leu	Ser
			85				90				95				
Met	Ser	Lys	Gly	Asn	Ile	Leu	Glu	Asp	Glu	Thr	Ala	Ile	Lys	Val	Leu
		100				105					110				
Ser	Ser	Ser	Lys	Val	Leu	Ser	Glu	Glu	Ile	Ser	Glu	Lys	Gln	Lys	Val
	115				120					125					
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	165	170
Leu Tyr Met His Ser Leu Thr His Ser Thr Lys Ser Glu Glu Leu Asn		175
	180	185
Leu Arg Ile Lys Tyr Ile Ile Asp His Phe Thr Leu Ser Ile Tyr Asn		190
	195	200
Asn Val Cys Arg Ser Leu Phe Glu Lys Asp Lys Leu Leu Phe Ser Leu		205
	210	215
Leu Leu Thr Ile Gly Ile Met Lys Gln Lys Lys Glu Ile Thr Glu Glu		220
225	230	235
Val Trp Tyr Phe Leu Leu Thr Gly Gly Ile Ala Leu Asp Asn Pro Tyr		240
	245	250
Pro Asn Pro Ala Pro Gln Trp Leu Ser Glu Lys Ala Trp Ala Glu Ile		255
	260	265
Val Arg Ala Ser Ala Leu Pro Lys Leu His Gly Leu Met Glu His Leu		270
	275	280
Glu Gln Asn Leu Gly Glu Trp Lys Leu Ile Tyr Asp Ser Ala Trp Pro		285
	290	295
His Glu Glu Gln Leu Pro Gly Ser Trp Lys Phe Ser Gln Gly Leu Glu		300
305	310	315
Lys Met Val Ile Leu Arg Cys Leu Arg Pro Asp Lys Met Val Pro Ala		320
	325	330
Val Arg Glu Phe Ile Ala Glu His Met Gly Lys Leu Tyr Ile Glu Ala		335
	340	345
Pro Thr Phe Asp Leu Gln Gly Ser Tyr Asn Asp Ser Ser Cys Cys Ala		350
	355	360
Pro Leu Ile Phe Val Leu Ser Pro Ser Ala Asp Pro Met Ala Gly Leu		365
	370	375
Leu Lys Phe Ala Asp Asp Leu Gly Met Gly Gly Thr Arg Thr Gln Thr		380
385	390	395
Ile Ser Leu Gly Gln Gly Gln Gly Pro Ile Ala Ala Lys Met Ile Asn		400
	405	410
Asn Ala Ile Lys Asp Gly Thr Trp Val Val Leu Gln Asn Cys His Leu		415
	420	425
Ala Ala Ser Trp Met Pro Thr Leu Glu Lys Ile Cys Glu Glu Val Ile		430
	435	440
Val Pro Glu Ser Thr Asn Ala Arg Phe Arg Leu Trp Leu Thr Ser Tyr		445
	450	455
Pro Ser Glu Lys Phe Pro Val Ser Ile Leu Gln Asn Gly Ile Lys Met		460
465	470	475
Thr Asn Glu Pro Pro Lys Gly Leu Arg Ala Asn Leu Leu Arg Ser Tyr		480
	485	490
Leu Asn Asp Pro Ile Ser Asp Pro Val Phe Phe Gln Ser Cys Ala Lys		495
	500	505
Ala Val Met Trp Gln Lys Met Leu Phe Gly Leu Cys Phe Phe His Ala		510
	515	520
Val Val Gln Glu Arg Arg Asn Phe Gly Pro Leu Gly Trp Asn Ile Pro		525
	530	535
Tyr Glu Phe Asn Glu Ser Asp Leu Arg Ile Ser Met Trp Gln Ile Gln		540
545	550	555
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<210> 4651
<211> 869

<212> DNA

<213> Homo sapiens

<400> 4651

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<210> 4652

<211> 289

<212> PRT

<213> Homo sapiens

<400> 4652

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Met	Ala	Gly	Leu	Trp	Leu	Gly	Leu	Val	Trp	Gln	Lys	Leu	Leu	Leu	Trp
			20					25					30		
Gly	Ala	Ala	Ser	Ala	Val	Ser	Leu	Ala	Gly	Ala	Ser	Leu	Val	Leu	Ser
		35					40					45			
Leu	Leu	Gln	Arg	Val	Ala	Ser	Tyr	Ala	Arg	Lys	Trp	Gln	Gln	Met	Arg
	50					55					60				
Pro	Ile	Pro	Thr	Val	Ala	Arg	Ala	Tyr	Pro	Leu	Val	Gly	His	Ala	Leu
65					70				75					80	
Leu	Met	Lys	Pro	Asp	Gly	Arg	Glu	Phe	Phe	Gln	Gln	Ile	Ile	Glu	Tyr
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Thr	Glu	Glu	Tyr	Arg	His	Met	Pro	Leu	Leu	Lys	Leu	Trp	Val	Gly	Pro


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<210> 4653
<211> 1276
<212> DNA
<213> Homo sapiens
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660

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 1276

<210> 4654

<211> 255

<212> PRT

<213> Homo sapiens

<400> 4654

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Pro	Tyr	Ser	Pro	Glu	Lys	Phe	Gln	Pro	Ser	Pro	Leu	Lys	Val	Asp	Lys
			20					25					30		
Glu	Thr	Asn	Thr	Glu	Asp	Leu	Phe	Leu	Glu	Glu	Ala	Ala	Ser	Leu	Val
		35				40						45			
Lys	Glu	Arg	Pro	Ser	Arg	Arg	Ala	Arg	Gly	Ser	Pro	Phe	Val	Arg	Ser
	50					55					60				
Gly	Thr	Ile	Val	Arg	Ser	Gln	Thr	Phe	Ser	Pro	Gly	Ala	Arg	Ser	Gln
65				70					75					80	
Tyr	Val	Cys	Arg	Leu	Tyr	Arg	Ser	Asp	Ser	Asp	Ser	Ser	Thr	Leu	Pro
			85					90						95	
Arg	Lys	Ser	Pro	Phe	Val	Arg	Asn	Thr	Leu	Glu	Arg	Arg	Thr	Leu	Arg
			100					105					110		
Tyr	Lys	Gln	Ser	Cys	Arg	Ser	Ser	Leu	Ala	Glu	Leu	Met	Ala	Arg	Thr
		115				120						125			
Ser	Leu	Asp	Leu	Glu	Leu	Asp	Leu	Gln	Ala	Ser	Arg	Thr	Arg	Gln	Arg
		130				135						140			
Gln	Leu	Asn	Glu	Glu	Leu	Cys	Ala	Leu	Arg	Glu	Leu	Arg	Gln	Arg	Leu
145					150				155						160
Glu	Asp	Ala	Gln	Leu	Arg	Gly	Gln	Thr	Asp	Leu	Pro	Pro	Trp	Val	Leu
			165					170						175	
Arg	Asp	Glu	Arg	Leu	Arg	Gly	Leu	Leu	Arg	Glu	Ala	Glu	Arg	Gln	Thr
		180					185					190			
Arg	Gln	Thr	Lys	Leu	Asp	Tyr	Arg	His	Glu	Gln	Ala	Ala	Glu	Lys	Met

	195		200		205	
Leu	Lys	Lys	Ala	Ser	Lys	Glu
	210		215		220	
Lys	Glu	Pro	Ile	Gln	Val	Gln
225		230		235		240
Thr	Arg	Pro	Arg	Ile	Asn	Ile
	245		250		255	

<210> 4655
 <211> 456
 <212> DNA
 <213> Homo sapiens

<400> 4655
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 180
 cttgatctcc agcacgaaga tgtaaaggaa ccacaggatc atggcgtagc cgcgcttggc
 240
 cgtgcgcacc tcggcgccca cccacacggc cacgtagcgc agcaccagca ggaagcacac
 300
 gtcgcccacc agcacgatga tgcacacgcc gatcttgccg gggccctggt tctgctccac
 360
 caggtacgcg tccatgacgg ccatgctgcc catgatcacc agcgtgggtca ggcacacgtg
 420
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 456

<210> 4656
 <211> 152
 <212> PRT
 <213> Homo sapiens

<400> 4656
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 20 25 30
 Gln Gln Gln Arg Gln Arg Leu Ala Arg His Gly Val Arg Arg Ala Ala
 35 40 45
 Pro Arg Arg Leu Val Val Leu Glu Asp Glu Val Glu Leu Asp Leu Gln
 50 55 60
 His Glu Asp Val Lys Glu Pro Gln Asp His Gly Val Ala Ala Leu Gly
 65 70 75 80
 Arg Ala His Leu Gly Ala His Pro His Gly His Val Ala Gln His Gln
 85 90 95
 Gln Glu Ala His Val Ala His Gln His Asp Asp Ala His Ala Asp Leu
 100 105 110
 Ala Arg Ala Leu Val Leu Leu His Gln Val Arg Val His Asp Gly His
 115 120 125
 Ala Ala His Asp His Gln Arg Gly Gln Ala His Val Ala Pro Val Arg

130 135 140
Gly Arg Gln His His Gly Arg Pro
145 150

<210> 4657
<211> 723
<212> DNA
<213> Homo sapiens

<400> 4657
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120
gagtcaggcc tagggaaatc caccctcatc aacagcctct tctcaccaa cctctatgag
180
gatcgccagg tgccagaggc cagtgetcgc ttgacacaga ccctggccat tgagcgccgg
240
ggcgtagaga ttgaggaagg ggggtgtgaaa gtgaagctga cccttgtgga cacacctggc
300
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360
caatttgagc agtaccttag ggatgagagt ggctgaacc ggaagaacat ccaggactcc
420
cgagtccact gctgcctcta cttcatctca cccttcgggc gggctccggc ccctagatgt
480
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600
gaggagatcc acatctacca gttccccgaa tgtgactctg atgaagatga agacttcaag
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720
gta
723

<210> 4658
<211> 233
<212> PRT
<213> Homo sapiens

<400> 4658
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Arg Lys Ser Val Lys Lys Gly Phe Asp Phe Thr Leu Met Val Ala Gly
20 25 30
Glu Ser Gly Leu Gly Lys Ser Thr Leu Ile Asn Ser Leu Phe Leu Thr
35 40 45
Asn Leu Tyr Glu Asp Arg Gln Val Pro Glu Ala Ser Ala Arg Leu Thr
50 55 60
Gln Thr Leu Ala Ile Glu Arg Arg Gly Val Glu Ile Glu Glu Gly Gly
65 70 75 80
Val Lys Val Lys Leu Thr Leu Val Asp Thr Pro Gly Phe Gly Asp Ser

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<210> 4659
<211> 864
<212> DNA
<213> Homo sapiens
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120
ggcgccggtg gtcgttgtga cccaacctgg agtcgggtccc ggtccggccc ccagaactc
180
caactggcag acaggcatgt gtgactgttt cagcgactgc ggagtctgtc tctgtggcac
240
attttgtttc ccgtgccttg ggtgtcaagt tgcagctgat atgaatgaat gctgtctgtg
300
tggaacaagc gtcgcaatga ggactctcta caggaccgga tatggcatcc ctggatctat
360
ttgtgatgac tatatggcaa ctctttgctg tcctcattgt actctttgcc aaatcaagag
420
agatatcaac agaaggagag ccatgcgtac tttctaaaaa ctgatgggtga aaagctctta
480
ccgaagcaac aaaattcagc agacacctct tcagcttgag ttcttcacca tcttttgcaa
540
ctgaaatatg atggatatgc ttaagtacaa ctgatggcat gaaaaaaatc aaatttttga
600
tttattataa atgaatgttg tccttgaact tagctaaatg gtgcaactta gtttctcctt
660
gctttcatat tatcgaattc gaatttcctg gcttataaac tttttaaatt acatttgaaa
720
tataaaccaa atgaaatatt ttactgataa gattcttcat gcttctttgc tctccttaaa
780
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840

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tttcctttttt cttttttttt ttg
864

<210> 4660
<211> 192
<212> PRT
<213> Homo sapiens

<400> 4660
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20 25 30
Ser Val Arg Ala Phe His His Gln Phe Leu Glu Ser Thr His Gly Ser
35 40 45
Pro Ser Val Asp Ile Ser Leu Asp Leu Ala Lys Ser Thr Met Arg Thr
50 55 60
Ala Lys Ser Cys His Ile Val Ile Thr Asn Arg Ser Arg Asp Ala Ile
65 70 75 80
Ser Gly Pro Val Glu Ser Pro His Cys Asp Ala Cys Ser Thr Gln Thr
85 90 95
Ala Phe Ile His Ile Ser Cys Asn Leu Thr Pro Lys Ala Arg Glu Thr
100 105 110
Lys Cys Ala Thr Glu Thr Asp Ser Ala Val Ala Glu Thr Val Thr His
115 120 125
Ala Cys Leu Pro Val Gly Val Leu Gly Gly Arg Thr Gly Thr Asp Ser
130 135 140
Arg Leu Gly His Asn Asp His Arg Arg Leu Ser Leu His Phe Gln Cys
145 150 155 160
Arg Ala Phe His Val Val Phe Ile Cys Gly Glu Ile Leu Ser Gln Ala
165 170 175
Thr Arg His Phe Leu Leu Gly Thr Leu Phe Thr Asn Phe His Cys Phe
180 185 190

<210> 4661
<211> 153
<212> DNA
<213> Homo sapiens

<400> 4661
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aaacacagcc atgaacagag tgaccgggga gaaggggtgg aggtcgtcca gaatgagccc
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153

<210> 4662
<211> 51
<212> PRT
<213> Homo sapiens

<400> 4662
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Tyr Met Ile Ser Lys His Ser His Glu Gln Ser Asp Arg Gly Glu Gly			
	20	25	30
Val Glu Val Val Gln Asn Glu Pro Phe Glu Asp Pro His His Gly His			
	35	40	45
Gly Gln Phe			
50			

<210> 4663

<211> 1550

<212> DNA

<213> Homo sapiens

<400> 4663

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120
cagacggatg acccaggccc cctcgatggc cctgacctcc aggccagcca ctcagagctc
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240
tggttcctct caactccac catgaattct tacttttata agttcatgat caaccttctc
300
aagagattca gcagcgaacg gaagctcctg gaggtcagag gccctttcat catcaggcag
360
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420
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480
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540
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660
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720
atcttcacat atctgcgcct gcagctgctg gacgtgaaga acaacccta cctgatcaag
780
gccctctacg gcctgctcat gctcctgccg cagagcagcg ccttccagct gctctcgac
840
cggctccagt gcgtgcccaa ccctgagctg ctgcagaccg aagacagtct aaaggcagcc
900
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960
gagaaggtcc agaacaagca cctggaagtg cggcaccagc ggagcgggcg tggggaccac
1020
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1080
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1140
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1200

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1320
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1380
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1440
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1550

<210> 4664

<211> 347

<212> PRT

<213> Homo sapiens

<400> 4664

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			20					25					30		
Glu	Ile	Ala	Ser	Ser	Pro	Ala	Gly	Gln	Thr	Asp	Asp	Pro	Gly	Pro	Leu
		35					40					45			
Asp	Gly	Pro	Asp	Leu	Gln	Ala	Ser	His	Ser	Glu	Leu	Gln	Val	Pro	Thr
	50					55					60				
Pro	Gly	Arg	Ala	Gly	Leu	Asn	Thr	Ser	Gly	Thr	Lys	Gly	Leu	Glu	
65					70				75					80	
Cys	Ser	Pro	Ser	Thr	Pro	Thr	Met	Asn	Ser	Tyr	Phe	Tyr	Lys	Phe	Met
				85				90						95	
Ile	Asn	Leu	Leu	Lys	Arg	Phe	Ser	Ser	Glu	Arg	Lys	Leu	Leu	Glu	Val
			100					105						110	
Arg	Gly	Pro	Phe	Ile	Ile	Arg	Gln	Leu	Cys	Leu	Leu	Leu	Asn	Ala	Glu
		115					120						125		
Asn	Ile	Phe	His	Ser	Met	Ala	Asp	Ile	Leu	Leu	Arg	Glu	Glu	Asp	Leu
	130					135					140				
Lys	Phe	Ala	Ser	Thr	Met	Val	His	Ala	Leu	Asn	Thr	Ile	Leu	Leu	Thr
145					150				155					160	
Ser	Thr	Glu	Leu	Phe	Gln	Leu	Arg	Asn	Gln	Leu	Lys	Asp	Leu	Lys	Thr
			165					170						175	
Leu	Glu	Ser	Gln	Asn	Leu	Phe	Cys	Cys	Leu	Tyr	Arg	Ser	Trp	Cys	His
			180					185						190	
Asn	Pro	Val	Thr	Thr	Val	Ser	Leu	Cys	Phe	Leu	Thr	Gln	Asn	Tyr	Arg
		195					200						205		
His	Ala	Tyr	Asp	Leu	Ile	Gln	Lys	Phe	Gly	Asp	Leu	Glu	Val	Thr	Val
	210					215					220				
Asp	Phe	Leu	Ala	Glu	Val	Asp	Lys	Leu	Val	Gln	Leu	Ile	Glu	Cys	Pro
225					230					235				240	
Ile	Phe	Thr	Tyr	Leu	Arg	Leu	Gln	Leu	Leu	Asp	Val	Lys	Asn	Asn	Pro
			245					250						255	
Tyr	Leu	Ile	Lys	Ala	Leu	Tyr	Gly	Leu	Leu	Met	Leu	Leu	Pro	Gln	Ser
			260					265						270	
Ser	Ala	Phe	Gln	Leu	Leu	Ser	His	Arg	Leu	Gln	Cys	Val	Pro	Asn	Pro

<210> 4666

<211> 167
 <212> PRT
 <213> Homo sapiens

<400> 4666
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 20 25 30
 Arg Glu Phe Trp Ser Arg Phe Arg Lys Glu Lys Glu Pro Val Val Val
 35 40 45
 Glu Thr Val Glu Glu Lys Lys Glu Pro Ile Leu Val Cys Pro Pro Leu
 50 55 60
 Arg Ser Arg Ala Tyr Thr Pro Pro Glu Asp Leu Gln Ser Arg Leu Glu
 65 70 75 80
 Ser Tyr Val Lys Glu Val Phe Gly Ser Ser Leu Pro Ser Asn Trp Gln
 85 90 95
 Asp Ile Ser Leu Glu Asp Ser Arg Leu Lys Phe Asn Leu Leu Ala His
 100 105 110
 Leu Ala Asp Asp Leu Gly His Val Val Pro Asn Ser Arg Leu His Gln
 115 120 125
 Met Cys Arg Val Arg Asp Val Leu Asp Phe Tyr Asn Val Pro Ile Gln
 130 135 140
 Asp Arg Ser Lys Phe Asp Glu Leu Ser Ala Ser Asn Leu Pro Pro Asn
 145 150 155 160
 Leu Lys Ile Thr Trp Ser Tyr
 165

<210> 4667
 <211> 1031
 <212> DNA
 <213> Homo sapiens

<400> 4667
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 420
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 540
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caattcctac ctgttttctg agtgagtc tagcaggtga agcaaggtga tgccttgcc
720
aagaagttgc attcctgtct gctttgcac tgctactttg ctgcagtttg gattcagagc
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840
agggcaaggt tccaaggtgt aaaggtcatg ctgctagcac attattaaaa atcagtctgg
900
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aaaaaaaaa a
1031

<210> 4668
<211> 207
<212> PRT
<213> Homo sapiens

<400> 4668
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20 25 30
Ala Gln Lys Ala Arg Trp Leu Ile Pro Leu Leu Glu Gly Lys Ala Arg
35 40 45
Ser Cys Phe Ala Met Thr Glu Pro Gln Val Ala Ser Ser Asp Ala Thr
50 55 60
Asn Ile Glu Ala Ser Ile Arg Glu Glu Asp Ser Phe Tyr Val Ile Asn
65 70 75 80
Gly His Lys Trp Trp Ile Thr Gly Ile Leu Asp Pro Arg Cys Gln Leu
85 90 95
Cys Val Phe Met Gly Lys Thr Asp Pro His Ala Pro Arg His Arg Gln
100 105 110
Gln Ser Val Leu Leu Val Pro Met Asp Thr Pro Gly Ile Lys Ile Ile
115 120 125
Arg Pro Leu Thr Val Tyr Gly Leu Glu Asp Ala Pro Gly Gly His Gly
130 135 140
Glu Val Arg Phe Glu His Val Arg Val Pro Lys Glu Asn Met Val Leu
145 150 155 160
Gly Pro Gly Arg Gly Phe Glu Ile Ala Gln Gly Arg Leu Gly Pro Gly
165 170 175
Arg Ile His His Cys Met Arg Leu Ile Gly Phe Ser Glu Arg Ala Leu
180 185 190
Ala Leu Met Lys Ala Arg Val Ser Ala Phe Pro Arg Thr Gln His
195 200 205

<210> 4669
<211> 683
<212> DNA
<213> Homo sapiens

<400> 4669

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 180
 cattgtaaag ccttttaaat aaggaagcat tatctccaca ttagagcaac agtagtttct
 240
 attcaaagaa gatacagaaa actaactgca gtgcgtaccc aagcagttat ttgtatacag
 300
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 360
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 420
 gcaattgtgg ttatacagaa ttattatagg ttgtatgta gagtaaaaaac agaaagaaaa
 480
 aacttttttag cagttcagaa atctgtccga actattcagg ctgcttttag aggcattgaaa
 540
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<210> 4670

<211> 135

<212> PRT

<213> Homo sapiens

<400> 4670

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Asn	Lys	Lys	Lys	Gln	Lys	Val	Phe	Gln	His	Asn	Glu	Leu	Lys	Lys	Glu	20	25	30	
Thr	Cys	Val	Gln	Ala	Gly	Phe	Gln	Asp	Met	Asn	Ile	Lys	Lys	Gln	Ile	35	40	45	
Gln	Glu	Gln	His	Gln	Ala	Ala	Ile	Ile	Ile	Gln	Lys	His	Cys	Lys	Ala	50	55	60	
Phe	Lys	Ile	Arg	Lys	His	Tyr	Leu	His	Ile	Arg	Ala	Thr	Val	Val	Ser	65	70	75	80
Ile	Gln	Arg	Arg	Tyr	Arg	Lys	Leu	Thr	Ala	Val	Arg	Thr	Gln	Ala	Val	85	90	95	
Ile	Cys	Ile	Gln	Ser	Tyr	Tyr	Arg	Gly	Phe	Lys	Val	Arg	Lys	Asp	Ile	100	105	110	
Gln	Asn	Met	His	Arg	Ala	Ala	Thr	Leu	Ile	Gln	Ser	Phe	Tyr	Arg	Met	115	120	125	
His	Arg	Ala	Lys	Val	Asp	Tyr										130	135		

<210> 4671

<211> 657

<212> DNA

<213> Homo sapiens

<400> 4671

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ggggctcggc aggggctacc cggctccgct tccgccagc aatggagact gcagccacgt
180
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240
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300
acaaacacca ccaacgcgtc ccatgtgcct gtgcagcccg gctcctcagt tgtgatgatg
360
gtcaacaacc tgggtggcct gtcattcctg gaactgggca tcatagccga cgctaccgtc
420
cgctccctgg agggccgcgg ggtgaagatt gcccggtccc tgggtgggcac cttcatgtca
480
gcactggaga tgcttggcat ttctctcacc ctctgctgg tggatgagcc tctcctgaaa
540
ctgatagatg ctgaaaccac tgcagcagcc tggcctcgaa gcggatggcg ctggtgctgg
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657

<210> 4672

<211> 152

<212> PRT

<213> Homo sapiens

<400> 4672

Ala Arg Leu Leu Gln Trp Phe Gln His Leu Ser Ala Gly Ile His Gly
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Lys Leu Met Leu Asp His Met Thr Asn Thr Thr Asn Ala Ser His Val
35 40 45
Pro Val Gln Pro Gly Ser Ser Val Val Met Met Val Asn Asn Leu Gly
50 55 60
Gly Leu Ser Phe Leu Glu Leu Gly Ile Ile Ala Asp Ala Thr Val Arg
65 70 75 80
Ser Leu Glu Gly Arg Gly Val Lys Ile Ala Arg Ala Leu Val Gly Thr
85 90 95
Phe Met Ser Ala Leu Glu Met Pro Gly Ile Ser Leu Thr Leu Leu Leu
100 105 110
Val Asp Glu Pro Leu Leu Lys Leu Ile Asp Ala Glu Thr Thr Ala Ala
115 120 125
Ala Trp Pro Arg Ser Gly Trp Arg Trp Cys Trp Asn Gly Cys Ala Ala
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Leu Ser Trp Ala Trp Arg Asn Thr
145 150

<210> 4673
<211> 1335
<212> DNA
<213> Homo sapiens

<400> 4673
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<210> 4674

<211> 402

<212> PRT

<213> Homo sapiens

<400> 4674

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Gly Pro Arg Asn Glu Asp Leu Ser Leu Asp Tyr Ala Ser Gln Pro Ala
50 55 60
Asn Leu Gln Phe Pro His Ile Met Pro Leu Ala Glu Asp Ile Lys Gly
65 70 75 80
Ser Cys Phe Gln Ser Gly Asn Lys Arg Asn His Glu Pro Phe Ile Ala
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Pro Glu Arg Phe Gly Asn Ser Ser Val Gly Phe Gly Ser Asn Ser His
100 105 110
Ser Gln Ala Pro Glu Lys Val Thr Leu Leu Val Asp Gly Thr Arg Phe
115 120 125
Val Val Asn Pro Gln Ile Phe Thr Ala His Pro Asp Thr Met Leu Gly
130 135 140
Arg Met Phe Gly Pro Gly Arg Glu Tyr Asn Phe Thr Arg Pro Asn Glu
145 150 155 160
Lys Gly Glu Tyr Glu Ile Ala Glu Gly Ile Ser Ala Thr Val Phe Arg
165 170 175
Thr Val Leu Asp Tyr Tyr Lys Thr Gly Ile Ile Asn Cys Pro Asp Gly
180 185 190
Ile Ser Ile Pro Asp Leu Arg Asp Thr Cys Asp Tyr Leu Cys Ile Asn
195 200 205
Phe Asp Phe Asn Thr Ile Arg Cys Gln Asp Leu Ser Ala Leu Leu His
210 215 220
Glu Leu Ser Asn Asp Gly Ala His Lys Gln Phe Asp His Tyr Leu Glu
225 230 235 240
Glu Leu Ile Leu Pro Ile Met Val Gly Cys Ala Lys Lys Gly Glu Arg
245 250 255
Glu Cys His Ile Val Val Leu Thr Asp Glu Asp Ser Val Asp Trp Asp
260 265 270
Glu Asp His Pro Pro Pro Met Gly Glu Glu Tyr Ser Gln Ile Leu Tyr
275 280 285
Ser Ser Lys Leu Tyr Arg Phe Phe Lys Tyr Ile Glu Asn Arg Asp Val
290 295 300
Ala Lys Thr Val Leu Lys Glu Arg Gly Leu Lys Asn Ile Arg Ile Gly
305 310 315 320
Ile Glu Gly Tyr Pro Thr Cys Lys Glu Lys Ile Lys Arg Arg Pro Gly
325 330 335
Gly Arg Ser Glu Val Ile Tyr Asn Tyr Val Gln Arg Pro Phe Ile Gln
340 345 350
Met Ser Trp Glu Lys Glu Glu Gly Lys Ser Arg His Val Asp Phe Gln
355 360 365
Cys Val Arg Ser Lys Ser Leu Thr Asn Leu Val Ala Ala Gly Asp Asp
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Glu Leu

390

395

400

<210> 4675
<211> 2868
<212> DNA
<213> Homo sapiens

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<210> 4676

<211> 641

<212> PRT

<213> Homo sapiens

<400> 4676

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Glu Phe Asn Pro Ser Ser Ser Gly Arg Ser Ala Arg Thr Val Ser Ser
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Asn Ser Phe Cys Ser Asp Asp Thr Gly Cys Pro Ser Ser Gln Ser Val
          50           55           60
Ser Pro Val Lys Thr Pro Ser Asp Ala Gly Asn Ser Pro Ile Gly Phe
65           70           75           80
Cys Pro Gly Ser Asp Glu Gly Phe Thr Arg Lys Lys Cys Thr Ile Gly
          85           90           95
Met Val Gly Glu Gly Ser Ile Gln Ser Ser Arg Tyr Lys Lys Glu Ser
          100          105          110
Lys Ser Gly Leu Val Lys Pro Gly Ser Glu Ala Asp Phe Ser Ser Ser
          115          120          125
Ser Ser Thr Gly Ser Ile Ser Ala Pro Glu Val His Met Ser Thr Ala
          130          135          140
Gly Ser Lys Arg Ser Ser Ser Ser Arg Asn Arg Gly Pro His Gly Arg
145          150          155          160
Ser Asn Gly Ala Ser Ser His Lys Pro Gly Ser Ser Ser Ser Ser Pro
          165          170          175
Arg Glu Lys Asp Leu Leu Ser Met Leu Cys Arg Asn Gln Leu Ser Pro
          180          185          190
Val Asn Ile His Pro Ser Tyr Ala Pro Ser Ser Pro Ser Ser Ser Asn
          195          200          205
Ser Gly Ser Tyr Lys Gly Ser Asp Cys Ser Pro Ile Met Arg Arg Ser
210          215          220
Gly Arg Tyr Met Ser Cys Gly Glu Asn His Gly Val Arg Pro Pro Asn
225          230          235          240
Pro Glu Gln Tyr Leu Thr Pro Leu Gln Gln Lys Glu Val Thr Val Arg
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His Leu Lys Thr Lys Leu Lys Glu Ser Glu Arg Arg Leu His Glu Arg
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Glu Ser Glu Ile Val Glu Leu Lys Ser Gln Leu Ala Arg Met Arg Glu
          275          280          285
Asp Trp Ile Glu Glu Glu Cys His Arg Val Glu Ala Gln Leu Ala Leu
          290          295          300
Lys Glu Ala Arg Lys Glu Ile Lys Gln Leu Lys Gln Val Ile Glu Thr
305          310          315          320
Met Arg Ser Ser Leu Ala Asp Lys Asp Lys Gly Ile Gln Lys Tyr Phe
          325          330          335
Val Asp Ile Asn Ile Gln Asn Lys Lys Leu Glu Ser Leu Leu Gln Ser
          340          345          350
Met Glu Met Ala His Ser Gly Ser Leu Arg Asp Glu Leu Cys Leu Asp
          355          360          365
Phe Pro Cys Asp Ser Pro Glu Lys Ser Leu Thr Leu Asn Pro Pro Leu
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Asp Thr Met Ala Asp Gly Leu Ser Leu Glu Glu Gln Val Thr Gly Glu

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385          390          395          400
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          420          425          430
Leu Glu Leu Val His Ser Thr Pro Gly Ala Asn Val Leu Glu Leu Leu
          435          440          445
Pro Ile Val Met Gly Gln Glu Glu Gly Ser Val Val Val Glu Arg Ala
          450          455          460
Val Gln Thr Asp Val Val Pro Tyr Ser Pro Ala Ile Ser Glu Leu Ile
465          470          475          480
Gln Ser Val Leu Gln Lys Leu Gln Asp Pro Cys Pro Ser Ser Leu Ala
          485          490          495
Ser Pro Asp Glu Ser Glu Pro Asp Ser Met Glu Ser Phe Pro Glu Ser
          500          505          510
Leu Ser Ala Leu Val Val Asp Leu Thr Pro Arg Asn Pro Asn Ser Ala
          515          520          525
Ile Leu Leu Ser Pro Val Glu Thr Pro Tyr Xaa Gln Cys Gly Cys Arg
          530          535          540
Ser Ser Cys Lys Pro Pro His Glu Arg Ala Gly Xaa Phe Ala Ala Cys
545          550          555          560
Val Glu Glu Arg Leu Asp Gly Val Ile Pro Leu Ala Arg Gly Gly Val
          565          570          575
Val Arg Gln Tyr Trp Ser Ser Ser Phe Leu Val Asp Leu Leu Ala Val
          580          585          590
Ala Ala Pro Val Val Pro Thr Val Leu Trp Ala Phe Ser Thr Gln Arg
          595          600          605
Gly Gly Thr Asp Pro Val Tyr Asn Ile Gly Ala Leu Leu Arg Gly Cys
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Cys Val Val Ala Leu His Ser Leu Arg Arg Thr Ala Phe Arg Ile Lys
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<210> 4677

<211> 940

<212> DNA

<213> Homo sapiens

<400> 4677

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420

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<211> 133
<212> PRT
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Arg Thr Val Phe Ile Trp Phe Val Gly Gln Leu Leu Gly Gly Glu Leu
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Lys Gly Tyr Ser Lys Thr Asn Thr Thr Ser Ser Arg Pro Ala Ser Ser
50 55 60
Arg Gly Ser Leu Ser Ser Ser Ser Ser Ser Ser Ser Ser Leu Thr Lys
65 70 75 80
Asp Ala Leu Pro Ser Ser Leu Lys Ser Asp Ser Thr Thr Ile Thr Ser
85 90 95
Gly Leu Val Phe Pro Phe Arg Ser Leu Cys Val Asn Pro Ala Lys Ser
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Val Lys Tyr Leu Glu
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<210> 4679
<211> 2284
<212> DNA
<213> Homo sapiens

<400> 4679
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<210> 4680
 <211> 112
 <212> PRT
 <213> Homo sapiens

<400> 4680
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 35 40 45
 Ser Pro Cys Ser Leu Thr Phe Ser Arg Ala Ile Lys Ala Thr Ser Ser
 50 55 60
 Ile Ala Gly Pro Gln Thr Phe Gln Gly Lys His Cys Phe Thr Ser Cys
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 Thr Ala Gly Ala Gly Val Cys Lys Ile Lys Glu Gly Gln Leu Arg Thr
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<210> 4681
 <211> 906
 <212> DNA
 <213> Homo sapiens

<400> 4681
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<210> 4682

<211> 153

<212> PRT

<213> Homo sapiens

<400> 4682

Met	Gly	Ser	His	Leu	Phe	Ile	Ser	Gly	Phe	Ser	Tyr	Asn	Pro	Val	Phe
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Lys	Glu	Met	Leu	Gln	Lys	Phe	Lys	Phe	Ser	His	Val	Tyr	Phe	Lys	Gln
			20					25					30		
Phe	Leu	Phe	His	Gln	Thr	Thr	Arg	Gln	Lys	Asn	Leu	Ser	Phe	Leu	Pro
		35					40				45				
Pro	Phe	Ser	Phe	Phe	Pro	Ser	Cys	Thr	His	Leu	Glu	Asn	Phe	Thr	Phe
		50				55					60				
Leu	Glu	Ser	Pro	Gln	Asn	Asn	Thr	Lys	Val	Ile	Val	Gly	Ala	Thr	Gly
65				70					75					80	
Phe	Met	Leu	Tyr	Cys	Gly	Ala	Arg	Gly	Lys	Thr	Cys	Leu	Tyr	Ala	Gly
			85					90					95		
Asn	Thr	His	Asn	His	Ser	Phe	Arg	Phe	Val	Cys	Leu	Met	Val	Ile	Cys
		100					105						110		
His	Lys	Arg	Asp	Leu	Gln	Lys	Gln	Gly	Ala	Leu	Val	Asn	Val	Gln	Tyr
		115				120						125			
Leu	Asp	Phe	Cys	Val	Leu	Arg	Thr	Gln	Lys	Gly	Ala	Thr	Leu	Leu	Phe
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<210> 4683

<211> 3246

<212> DNA

<213> Homo sapiens

<400> 4683

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240
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360
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420
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480
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540
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accactaccc tgagtgcacg agttgctcga cttaatccta cctggaacca ccccgaccaa
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2820
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3120
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3246

<210> 4684
<211> 385
<212> PRT
<213> Homo sapiens

<400> 4684
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Pro His Ala Arg Ser Arg Val Arg Pro Ala Pro Lys Thr Ile Pro Gln
35 40 45
Gln Thr His Gly Thr Ala Arg Ile Gly Thr His Asn Gly Thr Phe His
50 55 60
Cys Asp Glu Ala Leu Ala Cys Ala Leu Leu Arg Leu Leu Pro Glu Tyr
65 70 75 80
Arg Asp Ala Glu Ile Val Arg Thr Arg Asp Pro Glu Lys Leu Ala Ser
85 90 95
Cys Asp Ile Val Val Asp Val Gly Gly Glu Tyr Asp Pro Arg Arg His
100 105 110
Arg Tyr Asp His His Gln Arg Ser Phe Thr Glu Thr Met Ser Ser Leu
115 120 125
Ser Pro Gly Lys Pro Trp Gln Thr Lys Leu Ser Ser Ala Gly Leu Ile
130 135 140
Tyr Leu His Phe Gly His Lys Leu Leu Ala Gln Leu Leu Gly Thr Ser
145 150 155 160
Glu Glu Asp Ser Met Val Gly Thr Leu Tyr Asp Lys Met Tyr Glu Asn
165 170 175
Phe Val Glu Glu Val Asp Ala Val Asp Asn Gly Ile Ser Gln Trp Ala
180 185 190
Glu Gly Glu Pro Arg Tyr Ala Leu Thr Thr Thr Leu Ser Ala Arg Val
195 200 205
Ala Arg Leu Asn Pro Thr Trp Asn His Pro Asp Gln Asp Thr Glu Ala
210 215 220
Gly Phe Lys Arg Ala Met Asp Leu Val Gln Glu Glu Phe Leu Gln Arg
225 230 235 240
Leu Asp Phe Tyr Gln His Ser Trp Leu Pro Ala Arg Ala Leu Val Glu
245 250 255
Glu Ala Leu Ala Gln Arg Phe Gln Val Asp Pro Ser Gly Glu Ile Val
260 265 270
Glu Leu Ala Lys Gly Ala Cys Pro Trp Lys Glu His Leu Tyr His Leu
275 280 285
Glu Ser Gly Leu Ser Pro Pro Val Ala Ile Phe Phe Val Ile Tyr Thr
290 295 300
Asp Gln Ala Gly Gln Trp Arg Ile Gln Cys Val Pro Lys Glu Pro His

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<210> 4685
<211> 618
<212> DNA
<213> Homo sapiens
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120
gtccctgtgt ctctcctc gtgctggtgg caggggtgag ccaccaactc ggaaggccca
180
gggtgaagtg tgggctgctg aggactgagc gatcaccac atgtccacac agccagccgg
240
gccgcagctg atgcccagg acgcgctgga caccggtctg cagccgcttc caacctctcc
300
ggcctcagcc tccaggaggc acagcagatt ctcaacgtgt ccaagctgag ccctgaggag
360
gtccagaaga actatgaaca cttatttaag gtgaatgata aatccgtggg tggctccttc
420
tacctgcagt caaagggtgt ccgcgcaaag gagcgcttg atgaggaact caaaatccag
480
gccagggagg acagagaaaa agggcagatg ccccatagct gactgctcgg ctccccccgc
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618
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<210> 4686
<211> 106
<212> PRT
<213> Homo sapiens
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<400> 4686
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Asp Ala Arg Gly Arg Ala Gly His Arg Ser Ala Ala Ala Ser Asn Leu
          20          25          30
Ser Gly Leu Ser Leu Gln Glu Ala Gln Gln Ile Leu Asn Val Ser Lys
          35          40          45
Leu Ser Pro Glu Glu Val Gln Lys Asn Tyr Glu His Leu Phe Lys Val

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50		55		60											
Asn	Asp	Lys	Ser	Val	Gly	Gly	Ser	Phe	Tyr	Leu	Gln	Ser	Lys	Val	Val
65				70				75						80	
Arg	Ala	Lys	Glu	Arg	Leu	Asp	Glu	Glu	Leu	Lys	Ile	Gln	Ala	Gln	Glu
			85					90						95	
Asp	Arg	Glu	Lys	Gly	Gln	Met	Pro	His	Thr						
			100					105							

<210> 4687

<211> 309

<212> DNA

<213> Homo sapiens

<400> 4687

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180
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309

<210> 4688

<211> 90

<212> PRT

<213> Homo sapiens

<400> 4688

Met	Asp	Ile	Pro	Pro	Leu	Ala	Gly	Lys	Ile	Ala	Ala	Leu	Ser	Leu	Ser
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Ala	Leu	Pro	Val	Ser	Tyr	Ala	Leu	Asn	His	Val	Ser	Ala	Leu	Ser	His
			20				25					30			
Pro	Leu	Trp	Val	Ala	Leu	Met	Ser	Ala	Leu	Ile	Leu	Gly	Leu	Leu	Phe
		35				40					45				
Val	Ala	Val	Tyr	Ser	Leu	Ser	His	Gly	Glu	Val	Ser	Tyr	Asp	Pro	Leu
		50				55				60					
Tyr	Ala	Gly	Phe	Ala	Val	Phe	Ala	Phe	Thr	Ser	Gly	Gly	Asp	Leu	Ile
65				70				75						80	
Ile	Ala	Leu	Gln	Glu	Asp	Ser	Tyr	Gly	Gly						
			85					90							

<210> 4689

<211> 898

<212> DNA

<213> Homo sapiens

<400> 4689

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 120
 ctgctggaca gctcagccag cgtctctcac tacgagttct cccgggttcg ggagtttgtg
 180
 gggcagctgg tggctccact gcccctggca ccgnnggcc tgcgtgccag tctggtgcac
 240
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 300
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 360
 gtctatgcca aggaacagct gtttgctgaa gcatcaggtg cccggccagg ggtgccc aaa
 420
 gtgctggtgt ggggtgacaga tggcggtcc agcgacctg tgggcccccc catgcaggag
 480
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 660
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 720
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 780
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 898

<210> 4690

<211> 299

<212> PRT

<213> Homo sapiens

<400> 4690

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Ala	Leu	Ser	Leu	Arg	Trp	Arg	Trp	Arg	Thr	Pro	Asp	Cys	Pro	Pro	Ala
			20					25					30		
Ser	Ala	Pro	Glu	Asp	Leu	Met	Phe	Leu	Leu	Asp	Ser	Ser	Ala	Ser	Val
		35					40					45			
Ser	His	Tyr	Glu	Phe	Ser	Arg	Val	Arg	Glu	Phe	Val	Gly	Gln	Leu	Val
	50					55					60				
Ala	Pro	Leu	Pro	Leu	Ala	Pro	Xaa	Ala	Leu	Arg	Ala	Ser	Leu	Val	His
65					70					75				80	
Val	Gly	Ser	Arg	Pro	Tyr	Thr	Glu	Phe	Pro	Phe	Gly	Gln	His	Ser	Ser
			85						90					95	
Gly	Glu	Ala	Ala	Gln	Asp	Ala	Val	Arg	Ala	Ser	Ala	Gln	Arg	Met	Gly
		100					105					110			
Asp	Thr	His	Thr	Gly	Leu	Ala	Leu	Val	Tyr	Ala	Lys	Glu	Gln	Leu	Phe
	115					120						125			
Ala	Glu	Ala	Ser	Gly	Ala	Arg	Pro	Gly	Val	Pro	Lys	Val	Leu	Val	Trp
	130					135					140				
Val	Thr	Asp	Gly	Gly	Ser	Ser	Asp	Pro	Val	Gly	Pro	Pro	Met	Gln	Glu

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145          150          155          160
Leu Lys Asp Leu Gly Val Thr Val Phe Ile Val Ser Thr Gly Arg Gly
          165          170          175
Asn Phe Leu Glu Leu Ser Ala Ala Ala Ser Ala Pro Ala Glu Lys His
          180          185          190
Leu His Phe Val Asp Val Asp Asp Leu His Ile Ile Val Gln Glu Leu
          195          200          205
Arg Gly Ser Ile Leu Asp Ala Met Arg Pro Gln Gln Leu His Ala Thr
          210          215          220
Glu Ile Thr Ser Ser Gly Phe Arg Leu Ala Trp Pro Pro Leu Leu Thr
225          230          235          240
Ala Asp Ser Gly Tyr Tyr Val Leu Glu Leu Val Pro Ser Ala Gln Pro
          245          250          255
Gly Ala Ala Arg Arg Gln Gln Leu Pro Gly Asn Ala Thr Asp Trp Ile
          260          265          270
Trp Ala Gly Leu Asp Pro Asp Thr Asp Tyr Asp Val Ala Leu Val Pro
          275          280          285
Glu Ser Asn Val Arg Leu Leu Arg Pro Gln Ile
          290          295

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<210> 4691
 <211> 2375
 <212> DNA
 <213> Homo sapiens

<400> 4691
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 ccaaatgctc ctatctggct cataactcaat gaagctggac tatactggag agcagtagga
 180
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 240
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 300
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 360
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 420
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 480
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 540
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1020
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1080
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1140
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1380
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<210> 4692

<211> 383

<212> PRT

<213> Homo sapiens

<400> 4692

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Phe Leu Phe His Ala Ile Asn Lys Pro Asn Ala Pro Ile Trp Leu Ile
 35           40           45
Leu Asn Glu Ala Gly Leu Tyr Trp Arg Ala Val Gly Asn Ser Thr Phe
 50           55           60
Ala Ile Ala Cys Leu Gln Arg Ala Leu Asn Leu Ala Pro Leu Gln Tyr
 65           70           75           80
Gln Asp Val Pro Leu Val Asn Leu Ala Asn Leu Leu Ile His Tyr Gly
 85           90           95
Leu His Leu Asp Ala Thr Lys Leu Leu Leu Gln Ala Leu Ala Ile Asn
100          105          110
Ser Ser Glu Pro Leu Thr Phe Leu Ser Leu Gly Asn Ala Tyr Leu Ala
115          120          125
Leu Lys Asn Ile Ser Gly Ala Leu Glu Ala Phe Arg Gln Ala Leu Lys
130          135          140
Leu Thr Thr Lys Cys Pro Glu Cys Glu Asn Ser Leu Lys Leu Ile Arg
145          150          155          160
Cys Met Gln Phe Tyr Pro Phe Leu Tyr Asn Ile Thr Ser Ser Val Cys
165          170          175
Ser Gly Asn Cys His Glu Lys Thr Leu Asp Asn Ser His Asp Lys Gln
180          185          190
Lys Tyr Phe Asp Asn Ser Gln Ser Leu Asp Ala Ala Glu Glu Glu Pro
195          200          205
Ser Glu Arg Gly Thr Glu Glu Asp Pro Val Phe Ser Val Glu Asn Ser
210          215          220
Gly Arg Asp Ser Asp Ala Leu Arg Leu Glu Ser Thr Val Val Glu Glu
225          230          235          240
Ser Asn Gly Ser Asp Glu Met Glu Asn Ser Asp Glu Thr Lys Met Ser
245          250          255
Glu Glu Ile Leu Ala Leu Val Asp Glu Phe Gln Gln Ala Trp Pro Leu
260          265          270
Glu Gly Phe Gly Gly Ala Leu Glu Met Lys Gly Arg Arg Leu Asp Leu
275          280          285
Gln Gly Ile Arg Val Leu Lys Lys Gly Pro Gln Asp Gly Val Ala Arg
290          295          300
Ser Ser Cys Tyr Gly Asp Cys Arg Ser Glu Asp Asp Glu Ala Thr Glu
305          310          315          320
Trp Ile Thr Phe Gln Val Lys Arg Val Lys Lys Pro Lys Gly Asp His
325          330          335
Lys Lys Thr Pro Gly Lys Lys Val Glu Thr Gly Gln Ile Glu Asn Gly
340          345          350
His Arg Tyr Gln Ala Asn Leu Glu Ile Thr Gly Pro Lys Val Ala Ser
355          360          365
Pro Gly Pro Gln Gly Leu Leu Asp Trp Lys Thr Arg Lys Val Pro
370          375          380

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<210> 4693
 <211> 794
 <212> DNA
 <213> Homo sapiens

<400> 4693
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<210> 4694
 <211> 103
 <212> PRT
 <213> Homo sapiens

<400> 4694
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 20 25 30
 Asn Ser Gly Val Gly Gln Asp Gly Ser Leu Leu Ser Ser Pro Phe Leu
 35 40 45
 Lys Gly Phe Leu Ala Gly Tyr Val Val Ala Lys Leu Arg Ala Ser Ala
 50 55 60
 Val Leu Gly Phe Ala Val Gly Thr Cys Thr Gly Ile Tyr Ala Ala Gln
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 Ala Tyr Ala Val Pro Asn Val Glu Lys Thr Leu Arg Asp Tyr Leu Gln
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 Leu Leu Arg Lys Gly Pro Asp

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<210> 4695

<211> 2209

<212> DNA

<213> Homo sapiens

<400> 4695

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3883

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<210> 4696

<211> 302

<212> PRT

<213> Homo sapiens

<400> 4696

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Arg	Gly	Val	Lys	Ile	Ala	Arg	Ala	Leu	Val	Gly	Thr	Phe	Met	Ser	Ala
			20					25					30		
Leu	Glu	Met	Pro	Gly	Ile	Ser	Leu	Thr	Leu	Leu	Leu	Val	Asp	Glu	Pro
		35					40					45			
Leu	Leu	Lys	Leu	Ile	Asp	Ala	Glu	Thr	Thr	Ala	Ala	Ala	Trp	Pro	Asn
	50				55					60					
Val	Ala	Ala	Val	Ser	Ile	Thr	Gly	Arg	Lys	Arg	Ser	Arg	Val	Ala	Pro
65					70				75					80	
Ala	Glu	Pro	Gln	Glu	Ala	Pro	Asp	Ser	Thr	Ala	Ala	Xaa	Glu	Ala	Gln
			85					90				95			
Pro	Arg	Ser	Xaa	Met	Ala	Leu	Val	Leu	Glu	Arg	Val	Cys	Ser	Thr	Leu
		100					105					110			
Leu	Gly	Leu	Glu	Glu	His	Leu	Asn	Ala	Leu	Asp	Arg	Ala	Ala	Gly	Asp
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Gly	Asp	Cys	Gly	Thr	Thr	His	Ser	Arg	Ala	Ala	Arg	Ala	Ile	Gln	Glu
130						135					140				
Trp	Leu	Lys	Glu	Gly	Pro	Pro	Pro	Ala	Ser	Pro	Ala	Gln	Leu	Leu	Ser

145		150		155		160									
Lys	Leu	Ser	Val	Leu	Leu	Leu	Glu	Lys	Met	Gly	Gly	Ser	Ser	Gly	Ala
				165					170					175	
Leu	Tyr	Gly	Leu	Phe	Leu	Thr	Ala	Ala	Ala	Gln	Pro	Leu	Lys	Ala	Lys
			180					185						190	
Thr	Ser	Leu	Pro	Ala	Trp	Ser	Ala	Ala	Met	Asp	Ala	Gly	Leu	Glu	Ala
		195					200					205			
Met	Gln	Lys	Tyr	Gly	Lys	Ala	Ala	Pro	Gly	Asp	Arg	Thr	Met	Leu	Asp
	210					215					220				
Ser	Leu	Trp	Ala	Ala	Glu	Gln	Glu	Leu	Gln	Ala	Trp	Lys	Ser	Pro	Gly
225					230					235				240	
Ala	Asp	Leu	Leu	Gln	Val	Leu	Thr	Lys	Ala	Val	Lys	Ser	Ala	Glu	Ala
			245						250					255	
Ala	Ala	Glu	Ala	Thr	Lys	Asn	Met	Glu	Ala	Gly	Ala	Gly	Arg	Ala	Ser
		260						265				270			
Tyr	Ile	Ser	Ser	Ala	Arg	Leu	Glu	Gln	Pro	Asp	Pro	Gly	Ala	Val	Ala
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<210> 4697

<211> 1047

<212> DNA

<213> Homo sapiens

<400> 4697

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 240
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 420
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 720
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 780
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 840

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<210> 4698
<211> 182
<212> PRT
<213> Homo sapiens

<400> 4698
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Asp Ala Asp Ile Pro Leu Glu Leu Val Phe His Leu Pro Val Asn Tyr
35 40 45
Pro Ser Cys Leu Pro Gly Ile Ser Ile Asn Ser Glu Gln Leu Thr Arg
50 55 60
Ala Gln Cys Val Thr Val Lys Glu Lys Leu Leu Glu Gln Ala Glu Ser
65 70 75 80
Leu Leu Ser Glu Pro Met Val His Glu Leu Val Leu Trp Ile Gln Gln
85 90 95
Asn Leu Arg His Ile Leu Ser Gln Pro Glu Thr Gly Ser Gly Ser Glu
100 105 110
Lys Cys Thr Phe Ser Thr Ser Thr Thr Met Asp Asp Gly Leu Trp Ile
115 120 125
Thr Leu Leu His Leu Asp His Met Arg Ala Lys Thr Lys Tyr Val Lys
130 135 140
Ile Val Glu Lys Trp Ala Ser Asp Leu Arg Leu Thr Gly Arg Leu Met
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Phe Met Gly Lys Ile Ile Leu Ile Leu Leu Gln Gly Asp Arg Asn Asn
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Leu Lys Val Pro Lys Ser
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<210> 4699
<211> 1441
<212> DNA
<213> Homo sapiens

<400> 4699
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120
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240

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 1441

<210> 4700

<211> 116

<212> PRT

<213> Homo sapiens

<400> 4700

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Ser	Thr	Arg	Gly	Gln	Ser	Lys	Thr	Gly	Trp	Lys	Leu	Pro	Val	Thr	Leu
			20					25					30		
Ile	Cys	Cys	Pro	Arg	His	Pro	Leu	Met	Arg	Leu	Lys	Leu	Gly	Pro	Ser

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<210> 4701
<211> 812
<212> DNA
<213> Homo sapiens
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120
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180
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720
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<210> 4702
<211> 69
<212> PRT
<213> Homo sapiens
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<400> 4702
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Asp Pro Pro Thr Ser Ala Ser Glu Asn Ala Gly Ile Thr Gly Leu Ser
      20           25           30
His Xaa Pro Pro Gly His Phe Phe Leu Glu Thr Arg Ser Tyr Ser Leu
      35           40           45
Ala Lys Asn Gly Val Gln Trp Cys Asn Val Gly Ser Leu Gln Pro Lys
      50           55           60
Pro Pro Gly Leu Lys
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<210> 4703

<211> 513

<212> DNA

<213> Homo sapiens

<400> 4703

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<210> 4704

<211> 112

<212> PRT

<213> Homo sapiens

<400> 4704

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      20           25           30
His Leu Pro Ala Glu Leu Thr Ala Glu Glu Lys Glu Asp Leu Leu Lys
      35           40           45
Tyr Phe Gly Ala Gln Ser Val Arg Val Leu Ser Asp Lys Gly Arg Leu
      50           55           60
Lys His Thr Ala Phe Ala Thr Phe Pro Asn Glu Lys Ala Ala Ile Lys
      65           70           75           80
Ala Leu Thr Arg Leu His Gln Leu Lys Leu Leu Gly His Thr Leu Val
      85           90           95
Val Glu Phe Ala Lys Glu Gln Asp Arg Val His Ser Pro Cys Pro Thr

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100

105

110

<210> 4705

<211> 569

<212> DNA

<213> Homo sapiens

<400> 4705

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180
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420
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569

<210> 4706

<211> 154

<212> PRT

<213> Homo sapiens

<400> 4706

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Lys	Ser	Asn	Lys	Ile	Phe	Val	Gly	Gly	Ile	Pro	His	Asn	Cys	Gly	Glu
			20					25					30		
Thr	Glu	Leu	Arg	Glu	Tyr	Phe	Lys	Lys	Phe	Gly	Val	Val	Thr	Glu	Val
		35					40					45			
Val	Met	Ile	Tyr	Asp	Ala	Glu	Lys	Gln	Arg	Pro	Arg	Gly	Lys	Gly	Arg
	50					55				60					
Ser	Ser	Leu	Thr	Ser	Ala	Phe	Ser	Leu	Leu	Leu	Pro	Gln	Met	Ala	Asn
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Tyr	Leu	Thr	Arg	Gln	Ala	His	Thr	Gly	Gly	Gly	Cys	Ser	Lys	Gln	Pro
				85					90					95	
Gln	Glu	Gly	Thr	Ile	Trp	Arg	Gln	Met	Thr	Lys	Thr	Trp	Ala	Pro	His
			100					105					110		
Val	His	Pro	Ile	Gln	Pro	Val	Cys	Ala	Ser	Arg	Gly	Gln	Thr	Ser	His
		115					120					125			
Ile	Val	Phe	Trp	Leu	Val	Leu	Leu	Lys	Phe	Leu	Arg	Leu	Val	Met	Ser
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150

<210> 4707

<211> 748

<212> DNA

<213> Homo sapiens

<400> 4707

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240
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420
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748

<210> 4708

<211> 128

<212> PRT

<213> Homo sapiens

<400> 4708

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			20					25					30		
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Lys	His	Thr	Ala	Phe	Ala	Thr	Phe	Pro	Asn	Glu	Lys	Ala	Ala	Ile	Lys
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Ala	Leu	Thr	Arg	Leu	His	Gln	Leu	Lys	Leu	Leu	Gly	His	Thr	Leu	Val
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Val	Glu	Phe	Ala	Lys	Glu	Gln	Asp	Arg	Val	His	Ser	Pro	Cys	Pro	Thr

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<210> 4709

<211> 1351

<212> DNA

<213> Homo sapiens

<400> 4709

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<211> 304

<212> PRT

<213> Homo sapiens

<400> 4710

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Pro	Lys	Glu	Gly	Trp	Gln	Lys	Gly	Pro	Arg	Ser	Asp	Asn	Ser	Lys	Ser
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Leu	Arg	Glu	Tyr	Phe	Lys	Lys	Phe	Gly	Val	Val	Thr	Glu	Val	Val	Met
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Phe	Glu	Asp	Glu	Gln	Ser	Val	Asp	Gln	Ala	Val	Asn	Met	His	Phe	His
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Arg	Val	Val	Pro	Asn	Ala	Ala	Asn	Gly	Trp	Ala	Gly	Gln	Pro	Pro	Pro
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			260					265					270		
Gly	Phe	Pro	Pro	Pro	Gln	Gly	Phe	Pro	Gln	Gly	Tyr	Gly	Ala	Pro	Pro
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<210> 4711

<211> 2061

<212> DNA

<213> Homo sapiens

<400> 4711

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 2040
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 2061

<210> 4712
 <211> 187
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Ala Gln Gln Leu Glu Glu Glu Gly Pro Met Glu Glu Glu Glu Ala Gln
 50 55 60
 Pro Met Ala Ala Pro Glu Gly Lys Arg Ser Leu Ala Asn Gly Pro Asn
 65 70 75 80
 Ala Gly Glu Gln Pro Gly Gln Val Ala Gly Ala Asp Phe Glu Ser Glu
 85 90 95
 Asp Glu Gly Glu Glu Phe Asp Asp Trp Glu Asp Asp Tyr Asp Tyr Pro
 100 105 110
 Glu Glu Glu Gln Leu Ser Gly Ala Gly Tyr Arg Val Ser Ala Ala Leu
 115 120 125
 Glu Glu Ala Asp Lys Met Phe Leu Arg Thr Arg Glu Pro Ala Leu Asp
 130 135 140
 Gly Gly Phe Gln Met His Tyr Glu Lys Thr Pro Phe Asp Gln Leu Ala
 145 150 155 160
 Phe Ile Glu Glu Leu Phe Ser Leu Met Val Val Asn Arg Leu Thr Glu
 165 170 175
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 180 185

<210> 4713
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 <212> DNA
 <213> Homo sapiens

<400> 4713

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<210> 4714

<211> 145

<212> PRT

<213> Homo sapiens

<400> 4714

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Val	Gln	Val	Val
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Ala	Ala	Ser	Arg
50	55	60	
Ser	Ala	Ala	Ala
65	70	75	80
Gln	Ile	Leu	Asn
85	90	95	
Tyr	Glu	His	Leu
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Tyr	Leu	Gln	Ser
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Leu	Lys	Ile	Gln
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Thr			
145			

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 <211> 2051
 <212> DNA
 <213> Homo sapiens

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<211> 239

<212> PRT

<213> Homo sapiens

<400> 4716

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			20					25					30		
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<212> DNA
<213> Homo sapiens
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<210> 4718

<211> 259

<212> PRT

<213> Homo sapiens

<400> 4718

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Gln	Gln	Lys	Arg	Gly	Arg	Arg	Glu	His	Lys	Ala	Leu	Ile	Lys	Gln	Asp
			20					25					30		
Asn	Leu	Asp	Ala	Phe	Asn	Glu	Arg	Asp	Pro	Tyr	Lys	Ala	Asp	Asp	Ser
			35				40					45			
Arg	Glu	Glu	Glu	Glu	Glu	Asn	Asp	Asp	Asp	Asn	Ser	Leu	Glu	Gly	Glu
	50					55					60				
Thr	Phe	Pro	Leu	Glu	Arg	Asp	Glu	Val	Met	Pro	Pro	Pro	Leu	Gln	His
65					70				75					80	
Pro	Gln	Thr	Asp	Arg	Leu	Thr	Cys	Pro	Lys	Gly	Leu	Pro	Trp	Ala	Pro
				85					90					95	
Lys	Val	Arg	Glu	Lys	Asp	Ile	Glu	Met	Phe	Leu	Glu	Ser	Ser	Arg	Ser
			100					105					110		
Lys	Phe	Ile	Gly	Tyr	Thr	Leu	Gly	Ser	Asp	Thr	Asn	Thr	Val	Val	Gly
		115					120					125			
Leu	Pro	Arg	Pro	Ile	His	Glu	Ser	Ile	Lys	Thr	Leu	Lys	Gln	His	Lys
	130					135					140				
Tyr	Thr	Ser	Ile	Ala	Glu	Val	Gln	Ala	Gln	Met	Lys	Glu	Glu	Tyr	Leu
145				150					155					160	
Arg	Ser	Pro	Leu	Ser	Gly	Gly	Glu	Glu	Glu	Val	Glu	Gln	Val	Pro	Ala
			165						170					175	
Glu	Thr	Leu	Tyr	Gln	Gly	Leu	Leu	Pro	Ser	Leu	Pro	Gln	Tyr	Met	Ile
			180					185					190		
Ala	Leu	Leu	Lys	Ile	Leu	Leu	Ala	Ala	Ala	Pro	Thr	Ser	Lys	Ala	Lys
	195						200					205			
Thr	Asp	Ser	Ile	Asn	Ile	Leu	Ala	Asp	Val	Leu	Pro	Glu	Glu	Met	Pro
	210					215					220				
Thr	Thr	Val	Leu	Gln	Ser	Met	Lys	Leu	Gly	Val	Asp	Val	Asn	Arg	His
225				230					235					240	
Lys	Glu	Val	Ile	Val	Lys	Ala	Ile	Ser	Ala	Ala	Leu	Leu	Leu	Leu	Leu

245 250 255

Lys His Phe

<210> 4719
<211> 589
<212> DNA
<213> Homo sapiens

<400> 4719
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120
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180
aagtttaact gtgaagagaa ccagcacagt gatagctgct acaaactggg ggcctactat
240
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300
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360
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420
acaagggcct gtgatggtgg ctatacttcc agttgcttca acctcagtgc catgttcctg
480
cagggtgccc caggctttcc caaggacatg gacctggcat gtaaatactc catgaaagcc
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589

<210> 4720
<211> 196
<212> PRT
<213> Homo sapiens

<400> 4720
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Ser Phe Leu Glu Asn Met Glu Val Glu Cys Asn Tyr His Cys Tyr His
20 25 30
Glu Lys Asp Pro Asp Gly Cys Tyr Arg Leu Val Asp Tyr Leu Glu Gly
35 40 45
Ile Arg Lys Asn Phe Asp Glu Ala Ala Lys Val Leu Lys Phe Asn Cys
50 55 60
Glu Glu Asn Gln His Ser Asp Ser Cys Tyr Lys Leu Gly Ala Tyr Tyr
65 70 75 80
Val Thr Gly Lys Gly Gly Leu Thr Gln Asp Leu Lys Ala Ala Ala Arg
85 90 95
Cys Phe Leu Met Ala Cys Glu Lys Pro Gly Lys Lys Ser Ile Ala Ala
100 105 110
Cys His Asn Val Gly Leu Leu Ala His Asp Gly Gln Val Asn Glu Asp
115 120 125
Gly Gln Pro Asp Leu Gly Lys Ala Arg Asp Tyr Tyr Thr Arg Ala Cys

130		135		140
Asp Gly Gly Tyr Thr Ser	Ser Cys Phe Asn Leu	Ser Ala Met Phe Leu		
145	150	155	160	
Gln Gly Ala Pro Gly Phe	Pro Lys Asp Met Asp	Leu Ala Cys Lys Tyr		
	165	170	175	
Ser Met Lys Ala Cys Asp	Leu Gly His Ile Trp	Ala Cys Ala Asn Ala		
	180	185	190	
Ser Arg Met Tyr				
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<210> 4721
 <211> 1385
 <212> DNA
 <213> Homo sapiens

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 180
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 240
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 300
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 360
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 420
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 480
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 540
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 600
 gcacagagaa ggggttacca tggtttggga ccacagagat cacgtcaaca acagcctgtt
 660
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 720
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 780
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 840
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 900
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 960
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 1020
 aattacccaa tactgtatat aaggcaaata tggacagtta ctttcctctt gcctgttcat
 1080
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 1140

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 1260
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 agctt
 1385

<210> 4722

<211> 285

<212> PRT

<213> Homo sapiens

<400> 4722

Met	Asn	Arg	Leu	Pro	Asp	Asp	Tyr	Asp	Pro	Tyr	Ala	Val	Glu	Glu	Pro
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Ser	Asp	Glu	Glu	Pro	Ala	Leu	Ser	Ser	Ser	Glu	Asp	Glu	Val	Asp	Val
		20						25					30		
Leu	Leu	His	Gly	Thr	Pro	Asp	Gln	Lys	Arg	Lys	Leu	Ile	Arg	Glu	Cys
		35					40					45			
Leu	Thr	Gly	Glu	Ser	Glu	Ser	Ser	Ser	Glu	Asp	Glu	Phe	Glu	Lys	Glu
	50					55				60					
Met	Glu	Ala	Glu	Leu	Asn	Ser	Thr	Met	Lys	Thr	Met	Glu	Asp	Lys	Leu
65					70				75					80	
Ser	Ser	Leu	Gly	Thr	Gly	Ser	Ser	Ser	Gly	Asn	Gly	Lys	Val	Ala	Thr
			85					90					95		
Ala	Pro	Thr	Arg	Tyr	Tyr	Asp	Asp	Ile	Tyr	Phe	Asp	Ser	Asp	Ser	Glu
			100				105						110		
Asp	Glu	Asp	Arg	Ala	Val	Gln	Val	Thr	Lys	Lys	Lys	Lys	Lys	Lys	Gln
		115					120					125			
His	Lys	Ile	Pro	Thr	Asn	Asp	Glu	Leu	Leu	Tyr	Asp	Pro	Glu	Lys	Asp
	130					135				140					
Asn	Arg	Asp	Gln	Ala	Trp	Val	Asp	Ala	Gln	Arg	Arg	Gly	Tyr	His	Gly
145					150				155					160	
Leu	Gly	Pro	Gln	Arg	Ser	Arg	Gln	Gln	Gln	Pro	Val	Pro	Asn	Ser	Asp
			165					170					175		
Ala	Val	Leu	Asn	Cys	Pro	Ala	Cys	Met	Thr	Thr	Leu	Cys	Leu	Asp	Cys
			180				185					190			
Gln	Arg	His	Glu	Ser	Tyr	Lys	Thr	Gln	Tyr	Arg	Ala	Met	Phe	Val	Met
	195					200					205				
Asn	Cys	Ser	Ile	Asn	Lys	Glu	Glu	Val	Leu	Arg	Tyr	Lys	Ala	Ser	Glu
	210				215					220					
Asn	Arg	Lys	Lys	Arg	Arg	Val	His	Lys	Lys	Met	Arg	Ser	Asn	Arg	Glu
225				230					235					240	
Asp	Ala	Ala	Glu	Lys	Ala	Glu	Thr	Asp	Val	Glu	Glu	Ile	Tyr	His	Pro
			245					250					255		
Val	Met	Cys	Thr	Glu	Cys	Ser	Thr	Glu	Val	Ala	Val	Tyr	Asp	Lys	Asp
			260				265					270			
Glu	Val	Phe	His	Phe	Phe	Asn	Val	Leu	Ala	Ser	His	Ser			
	275					280					285				

<210> 4723
<211> 1213
<212> DNA
<213> Homo sapiens

<400> 4723
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120
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180
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240
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720
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780
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960
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1080
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1200
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1213

<210> 4724
<211> 54
<212> PRT
<213> Homo sapiens

<400> 4724

Met Gly Pro Arg Arg His Arg Ala Ser Ser Ile Leu Pro Gln Thr Leu
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 Val Gly Val Pro Val Gly Trp Gly Gly Glu Trp Gly Glu Pro Thr Pro
 20 25 30
 Gly Pro Pro Ser Pro Phe Pro Arg Gln Ser Pro Phe Gly Leu Asn Pro
 35 40 45
 Phe Leu Pro Ala Gly Asp
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<210> 4725

<211> 366

<212> DNA

<213> Homo sapiens

<400> 4725

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 120
 tgcgcatgtg cacgtgtgta tatgcatatg tgcacagggtg cctgtgcctg tgtgaacaca
 180
 tgttctcagc tgtgtacctg cntctcttgc ccatgcntgt acgtgcacac gtgcctctgt
 240
 atgcatgcat gtatagctgt gtgcccatac cctcacgtga gaatacatat gcgcttgtgc
 300
 cttcacctct gcatgcatgc tagtgtgtc ctgcgtgcat ggggtgtgcat ctgtgcctgc
 360
 acgcgt
 366

<210> 4726

<211> 122

<212> PRT

<213> Homo sapiens

<400> 4726

Xaa Phe Leu Glu Gly Glu Leu Gly Arg Ser Arg Arg Thr Pro Ala Gly
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 Gly Arg Gly Ala Met Leu Ala Ile Asp Thr Ala Ser Asp Ile Leu Ala
 20 25 30
 His Val His Val Tyr Ser Arg Leu Cys Ala Cys Ala Arg Val Tyr Met
 35 40 45
 His Met Cys Thr Gly Ala Cys Ala Cys Val Asn Thr Cys Ser His Val
 50 55 60
 Cys Thr Cys Xaa Ser Cys Pro Cys Xaa Tyr Val His Thr Cys Leu Cys
 65 70 75 80
 Met His Ala Cys Ile Ala Val Cys Pro Tyr Pro His Val Arg Ile His
 85 90 95
 Met Arg Leu Cys Leu His Leu Cys Met His Ala Ser Val Leu Leu Arg
 100 105 110
 Ala Trp Val Cys Ile Cys Ala Cys Thr Arg
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<210> 4727
<211> 2031
<212> DNA
<213> Homo sapiens

<400> 4727
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240
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1440

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<210> 4728

<211> 328

<212> PRT

<213> Homo sapiens

<400> 4728

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Ala	Glu	Gly	Arg	Val	Ala	Leu	Ala	Arg	Ala	Ala	Asp	Cys	Glu	Val	Glu
			20					25					30		
Gln	Trp	Asp	Ser	Asp	Glu	Pro	Ile	Pro	Ala	Lys	Glu	Leu	Glu	Arg	Gly
		35					40					45			
Val	Ala	Gly	Ala	His	Gly	Leu	Leu	Cys	Leu	Leu	Ser	Asp	His	Val	Asp
	50					55					60				
Lys	Arg	Ile	Leu	Asp	Ala	Ala	Gly	Ala	Asn	Leu	Lys	Val	Ile	Ser	Thr
65				70					75					80	
Met	Ser	Val	Gly	Ile	Asp	His	Leu	Ala	Leu	Asp	Glu	Ile	Lys	Lys	Arg
			85					90					95		
Gly	Ile	Arg	Val	Gly	Tyr	Thr	Pro	Asp	Val	Leu	Thr	Asp	Thr	Thr	Ala
			100					105					110		
Glu	Leu	Ala	Val	Ser	Leu	Leu	Leu	Thr	Thr	Cys	Arg	Arg	Leu	Pro	Glu
		115						120				125			
Ala	Ile	Glu	Glu	Val	Lys	Asn	Gly	Gly	Trp	Thr	Ser	Trp	Lys	Pro	Leu
	130					135						140			
Trp	Leu	Cys	Gly	Tyr	Gly	Leu	Thr	Gln	Ser	Thr	Val	Gly	Ile	Ile	Gly
145				150					155					160	
Leu	Gly	Arg	Ile	Gly	Gln	Ala	Ile	Ala	Arg	Arg	Leu	Lys	Pro	Phe	Gly
			165					170					175		
Val	Gln	Arg	Phe	Leu	Tyr	Thr	Gly	Arg	Gln	Pro	Arg	Pro	Glu	Glu	Ala
		180					185						190		
Ala	Glu	Phe	Gln	Ala	Glu	Phe	Val	Ser	Thr	Pro	Glu	Leu	Ala	Ala	Gln
	195					200					205				
Ser	Asp	Phe	Ile	Val	Val	Ala	Cys	Ser	Leu	Thr	Pro	Ala	Thr	Glu	Gly

210	215	220
Leu Cys Asn Lys Asp Phe Phe Gln Lys Met Lys Glu Thr Ala Val Phe		
225	230	235
Ile Asn Ile Ser Arg Gly Asp Val Val Asn Gln Asp Asp Leu Tyr Gln		240
	245	250
Ala Leu Ala Ser Gly Lys Ile Ala Ala Ala Gly Leu Asp Val Thr Ser		255
	260	265
Pro Glu Pro Leu Pro Thr Asn His Pro Leu Leu Thr Leu Lys Asn Cys		270
	275	280
Val Ile Leu Pro His Ile Gly Ser Ala Thr His Arg Thr Arg Asn Thr		285
	290	295
Met Ser Leu Leu Ala Ala Asn Asn Leu Leu Ala Gly Leu Arg Gly Glu		300
305	310	315
Pro Met Pro Ser Glu Leu Lys Leu		320
	325	

<210> 4729
 <211> 753
 <212> DNA
 <213> Homo sapiens

<400> 4729
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 120
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 180
 gaaaccact gaagacgtct gcgtgagaat agagaccacc gaggccgact cgcgggcccgc
 240
 tgcaccacc gccaggaca aaaggagccc agcgtacta gctgcaccgc attcctccca
 300
 gtgcttagca tgaagaaggc cgaaatggga cgattcagta tttccccgga tgaagacagc
 360
 agcagctaca gttccaacag cgacttcaac tactcctacc ccaccaagca agctgctctg
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 aaaagccatt atgcagatgt agatcctgaa aaccagaact ttttacttga atcgaatttg
 480
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 aatactggaa ttgctctttt tataattctc ttgacatttg tgtcaatatt ttcctgtat
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 753

<210> 4730
 <211> 148
 <212> PRT
 <213> Homo sapiens